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ABSTRACT

This conference of administrative and consulting personnel from state and city education departments, vocational schools, and universities concerned planning for the future of the Connecticut regional vocational-technical schools. These state-operated schools are essentially specialized regional high schools with almost exclusive emphasis on trade and industrial education but offering some post-secondary education and extensive adult programs. Specialists presented information on vocational-technical education planning which served as background for workshops on problems in curriculum, staff, administration, and planning. Summaries of these sessions, participants' responses to the problems discussed, and evaluation are included in the appendixes. A final evaluation of the institute will be developed about a year from its date. (MF)

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REPORT OF INSTITUTE ON PLANNING VOCATIONAL EDUCATION

ED 072260

March 13-16, 1972

at

The University of Connecticut

Storrs, Connecticut

Sponsored by

The University of Connecticut
Department of Higher, Technical, and Adult Education

and

The State Department of Education
Division of Vocational Education

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by

Richard W. Whinfield
Associate Professor
Department of Higher, Technical
and
Adult Education

March 13 - 16, 1972

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This Institute, designed to assist in planning the future of the Connecticut Regional Vocational-Technical Schools, was based on a model of planning which moves from the identification of the problem, to identification of alternative ways to solving the problem, selection of the best process to be used in solving the problem, implementation of the process and concludes with an evaluation.

A principle element in making this planning model work is the involvement of many people for many kinds of input. The Institute was designed to do this. But even in planning for the Institute a number of people were involved. The director is indebted to all those people for their assistance, but unfortunately can only identify a few in this short space.

Dr. Robert McKay served as Associate Institute Director and was responsible for attending to all the details needed to have a conference proceed in an orderly way. Dr. Herbert Righthand, Assistant State Director of Vocational Education and Walter Bielobrzeski, Chief, Bureau of Vocational Technical Schools, were extremely helpful in identifying problems and suggesting the processes to be used. Six graduate students worked hard during the conference to keep appropriate records and reports; Elmer and Mary Ellen Dickens, Margaret Kent, David Dzurec, Virginia Vespoli, and Nathan Tufts. Mrs. Kent also assisted the director in sifting through and synthesizing the reports. Throughout the conference, and in preparing this report, Mrs. Marilou Taylor served as secretary, as well as the key person

who kept on top of all the details associated with the conference.

Singling out these persons is not meant to minimize the contribution of many others - the planning committees, the persons in Continuing Education who provided space, arranged for housing and food - and finally the most important group, the participants and presentors who worked long and hard in their deliberations.

Richard W. Whinfield
Institute Director

INSTITUTE PURPOSES AND PROCEDURES

This conference, planned and executed by the University of Connecticut, Department of Higher, Technical, and Adult Education, was one of several conferences sponsored by the Division of Vocational Education using funds from the Education Professions Development Act.

The conference was aimed at planning for the future of the Connecticut Regional Vocational-Technical Schools. These state operated schools are essentially specialized regional high schools with their major almost exclusive emphasis in trade and industrial education. The schools also offer some post high school education and rather extensive adult trade and industrial programs.

As with all educators at this time in our history, the personnel of the Regional Vocational-Technical Schools are concerned with providing educational programs which will continuously meet the needs of both students and society. To do this it seemed desired for the leaders of these schools to have an opportunity to thoughtfully identify and discuss problems and alternative solutions to those problems, and that this be done in a setting removed from the pressures of the educators job. Thus, the conference was held on the rural campus of the University of Connecticut at Storrs.

Staff members of the University and the State Department, Division of Vocational Education, started the planning for the institute by setting the conference objectives and framework. When this was done, a meeting was held with an ad hoc advisory committee composed of Representatives of the Central Office Administration, Bureau of Vocational-Technical Schools, Administrators of Regional Vocational-Technical Schools and a Representative of the University of Connecticut.

Following this meeting the program was developed (Appendix A). A list of persons to be invited was developed and invitations sent out (Appendix B). To develop the topics in more detail, those who were invited were asked to identify problems they felt needed to be considered in the conference. It was part of the procedure to summarize these problems into a list which could be evaluated for their relative importance by the participants. Such a list was developed (Appendix C-1), administered, and evaluated (Appendix C-2). The results of this procedure established the major topics for the workshop groups; problems related to students, curriculum, staff, administration and planning.

In the development of the program and all activities associated with it, the Institute Staff developed a PERT System to guide them in performing all the functions necessary to have the Institute achieve its goal (Appendix D).

The procedure used in the Institute was to have specialists present pertinent information at appropriate times during the Institute. This served as background information which would be helpful to the participants in subsequent workshop sessions.

There were five workshop sessions during the four days. 1) Student problems, 2) Curriculum problems, 3) Staff problems, 4) Administration problems, 5) Planning problems. Five separate groups were formed to attack the problems presented to them. These problems came from four sources; 1) the problem identified by the participants prior to the conference, 2) from the specialist presentations, 3) from a panel which gave a short presentation prior to each workshop session, and 4) from the participants themselves as they carried on their discussions. The challenge to each workshop group was to classify the problem and then suggest solutions.

To be sure that all proposed solutions identified in the work sessions would be recognized and reported, advanced graduate students kept notes, and each group in each work session was recorded on audio tapes. Following each session each group appointed a member to summarize their discussions and report back to the total group. This was also recorded on audio tapes.

The graduate students using their notes and the audio tapes then prepared a report of each session. The final summary report of proposed solutions or actions was developed from these reports and is reported in this report under "Proposed activities for improving services of regional vocational-technical schools," Section II. This section represents a response to the problems raised by the participants and found in Appendix C. These two listings constitute the Institute findings.

The activities related to this workshop are not yet completed. The suggested activities have been developed into a list which was sent out to all participants who rated each suggestion on a five point scale. (Appendix E). The responses have been summarized and a priority listing developed. This list of priorities will be presented to the central office and to all participants. The decision of what action will be taken will be determined by the Bureau of Regional Vocational-Technical Schools of the Connecticut State Department of Vocational Education.

In addition, each participant will be contacted about one year from the time of the conference inquiring about the action which resulted from the Institute. This will represent the final evaluation of the Institute.

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Section I

Presentations

The Economic and Social Environment of the Decade Ahead: Implications for Vocational-Technical Education Planning

Dale L. Hiestand

My presentation today has three purposes: (1) to outline the major forces affecting our economy and society; (2) to indicate their relevance to education, both general and vocational; and (3) to suggest some key policy problems for the future of vocational-technical education.

The central problem of the 1970's, I believe, will be continuing difficulties in maintaining full employment. Not because it will be impossible in any technical sense, but because I believe we will have difficulty in arriving at a set of public policies and programs which will maintain continuous full employment.

Government is now the key to the economy. It is the dynamic, growing sector. It also controls the other sectors via a broad range of mechanisms, including (a) contracts and other forms of spending, in terms of both their level and specific patterns; (b) taxes, also in terms of their level and specific patterns; (c) a broad range of legal exemptions and protections; (d) a broad range of antitrust and other market controls; (e) the regulation of many entire industries; (f) the regulation of many specific problems, including safety, pollution, zoning, etc.; (g) and general price and wage controls. The level and pattern of governmental spending is probably the most important of these.

The maintenance of full employment requires a delicate balance among all of these governmental forces affecting the economy. This balance occurs only when there is an adequate agreement on goals by the executive and legislative branches, and the Federal, state, and local levels of government.

An adequate agreement occurs only rarely, as the case of various wars,

the defense programs of the 1950's, the space programs, and the package of economic and social policies of the mid-1960's, including manpower training, tax reduction, poverty programs, and medicare and medicaid.

Other than at these times, government has typically been divided, with the President and the Congress not fully agreeing, and the Federal, state and local governments also not reaching an adequate agreement on packages of programs which will produce more or less continuous full employment. Now, we also hear a rising chorus of doubt about whether continued economic growth is in fact desirable.

The failure to agree on a continuing array of programs which will produce full employment reflects a kind of political instability in this country. We seem to be fickle, or faddists. We rush into new programs, overpromise in terms of their prospective benefits, overspend in the light of available resources of manpower and facilities for programs, and thus distort the economic structure, driving up wages and prices. Then we--that is, the Congress, the President, and the people-- become quickly disenchanted with the high costs and limited benefits, cut back on the program, producing unemployment, and disrupting industries, communities, and careers built in the preceding boom. We followed this pattern with World War II, the Korean War, the Vietnam War, the space program, civil rights, and the poverty programs. We have not yet cut back on two fields into which we rushed, manpower training and Medicare-Medicaid, but there is a rising chorus of doubts that these programs are producing benefits at all commensurate with their cost.

The point is that we, as a nation, seem to be unable to set and hold to policies which will produce continuing stability at full employment. There is no lack of possible private and public programs which could comprise that full employment package. The list includes urban rebuilding, mass transit,

pollution control, health services, prison reform, recreation and leisure, child care and development, housing for the poor, and housing for the extraordinarily large number of young people now reaching adulthood in the suburbs. I doubt, however, that we will get a majority agreement on enough of these various possibilities to produce continuous full employment.

Therefore, I am reluctant to predict the shape of the economy over the next ten years. The key determinant is the precise package of public policies we adopt. Which of the above programs will be accepted, and at what level? How high will the defense budget be, and what will be its nature? How much Federal funds will go to states and local governments, and for what purposes? What is going to happen to international economic policies, with their profound impact on the steel, automobile, electronics, and oil industries? At this point in time, one would have to be very courageous to predict the political development which will determine how these policy questions are approached and settled.

Some trends seem clear on the surface, but close inspection reveals that political factors have helped determine them, and therefore political uncertainty affects just how they will progress in the future. We know there has been a trend toward a service economy. But this largely reflects state and local spending for education, health, and other local services. It also reflects the decay of our goods-producing industries faced with imports from abroad, and thus can be affected by international policies. There has been a continuing shift toward white-collar employment, but this also reflects the growth of government and the decline of manufacturing. There has been a long-run trend toward more professional, engineering, and technical workers. Much of this reflected defense and space spending, which are now under a cloud. Congress has grown disenchanted with research and development,

including that minor part of it outside the defense and space programs. The health sector has grown rapidly, but now faces a confused debate centering on the need for more services, the inflation in incomes and prices which results from more money in the health sector, and proposals for national health insurance and a possible restructuring of health delivery systems. To repeat, each of the major trends has a strong governmental component, each of which is subject to considerable uncertainty.

One thing is clear. We will have a rapidly growing as well as an extremely elastic labor force. Four million or more young people will reach labor-force age during each of the next ten years. In addition, the Armed Forces are being cut back. Moreover, the pattern is well-established that women will work while they are young, withdraw as they have children, and return after age 35 to work for most of the rest of their lives. The drop in marriage rates suggests more women will be working, although given young cohabitation customs, the marriage rate is becoming a meaningless statistic. More importantly, birth rates have been running at 3.5 million or less for several years. The drop in birth rates promises to continue as public policy increasingly support birth control and prevention. There is also a continuing rise in the number of broken or half-formed families, which often means that the woman will work.

In addition, immigration is fairly high, including many from southern and eastern Europe, Asia, and Latin America. There has been a rapid buildup in illegal immigrants in cities with major international air-and seaports.

The high elasticity in the labor force reflects the fact that both the number of women and the rate of immigration respond to the level of demand for manpower. In addition, there is evidence that large numbers of students in colleges, junior colleges, and even high schools would leave if there were

jobs for them, or will stay in school if they are without jobs.

My conclusion is that there will be tremendous competition for jobs, if the economy fails to grow in pace with the rapidly expanding and elastic labor force. One can already see this in Connecticut cities, which are drawing reserve labor supplies from New York City, depending on relative supply and demand conditions. If the Connecticut econo were to expand, it would be likely to attract not only more blacks and Puerto Ricans, but also others of the newer immigrants to New York, including Haitians, Cubans, Dominicans, Colombians, and Chinese.

We can also predict continuing problems in the cities, although their locale may change. So far, the major problems have been in the cities and areas built prior to World War I, characterized by the fact they were the homes of the immigrants of that period and were dependent on such older industries as textiles, clothing, steel, and railroads. The public and private capital of these areas--plants, sewers, streets, etc.--are really no longer usable, if they haven't already collapsed or been abandoned. But many of these areas are being or have been rebuilt.

The problems of the cities are increasingly shifting to those sections and cities built in the 1920's. They are now the internal suburbs of great cities. They are heavily dependent on the auto, both for transportation and for employment. The major centers dependent on automobile manufacturing, including their glass, rubber, steel, etc., are in the Midwest. The eastern cities may not be so severely affected.

In general, locational shifts may be less important than they have been. The lack of space and defense contracts will probably diminish the rate of growth of southern and western cities. With less rapid population growth, the shift to the suburbs may diminish. Indeed, many of the new crop of young

adults in the suburbs may turn back to the cities to find housing and jobs. The suburbs are in fact clogged. Land and rent values in the cities are becoming more favorable. And these are signs that new political balance points may be reached in the cities, so that the social climate may become more stabilized.

There is little doubt that there will be a continuing shift in governmental responsibility from local to state and from state to Federal governments. The shift will be primarily in financial responsibility, but the shift in operational responsibility will continue almost as rapidly. While this means more Federalism, there will be continuing efforts to retain or gain some degree of local influence on the decision and power apparatus. The means may vary: traditional local and state governments or new kinds of planning, advisory, and community boards. But these contradictory trends toward centralization and decentralization will continue.

The insistence by minorities for a fair shake will certainly not decrease. Indeed, the Spanish are becoming more organized, and women are becoming more energized. The focus may shift as more middle-class and other blacks and Spanish-speaking go into the older suburbs. But the older generation of immigrants, many of them left in areas which were changing in racial character and around whom some of the racial problems revolved, will simply expire due to old age.

I think it is certain that the next decade will produce great changes, often unpredictable. This has been foreshadowed by the recent actions of the President in the withdrawal from Vietnam, his adoption of "Keynesian" economics and large deficits, and his trip to China. He strongly opposed these actions and now adopts them. The shibboleths of the past are under great attack, and the President's actions undercut the strength of conservative insistence on

the modes of the past. Arguments for private enterprise, against public responsibility for such fields as health service, and against Federal intrusion into local affairs are likely to be brushed aside in the next several years.

We also face the prospect of other unexpected changes. We've had such recent examples as trouble with nuclear power technology, fertilizers, and pesticides. It is difficult to anticipate where we will be surprised next.

Now, what are the implications of all these things for education as I see them? The prospect is that educational expenditures will barely keep pace with inflation during the 1970's. Expenditures more than doubled between 1960 and 1970, but the rate of growth will be much less in the 1970's. High school enrollments are going to drop after 1975, and they are already doing so in some school systems. We are going to have a continued shift from the private and parachial schools to the public schools, and this is going to happen at an increasing rate. So the school systems are not going to be very affluent sectors of the economy over the next ten years.

Our society is also becoming more disillusioned with education than we have witnessed for a long time. Education is no longer seen by the American people as a panacea for all its ills. This, in fact, may be a positive factor. That is, education has been increasingly saddled with all the problems of society for the past several decades, and educators have seemed to be willing to assume these problems. I suspect, however, that education is going to be in for a rough time of it throughout the next decade.

There are other positive factors. It is quite clear that the supply of teachers is going to be quite great, and therefore the quality of teachers is almost certain to rise. School systems will be able to select the better teacher, and there is probably going to be a great deal of pressure inside

school systems from the ambitious, able young teacher versus the older, more entrenched teachers. This is going to lead to a lot of friction over the next ten years.

If the economy continues to be slack, as I suspect it will be, then there will be considerable pressure for more specific education and training. There are two reasons for this. One is that young people who are competing for jobs will demand more skills. Employers will begin to select applicants in terms of their current skills, rather than their long-range promise. Young people, and their parents who are concerned about their getting jobs, will put pressure on the school systems for more vocational education. The second reason for increased demand for more specific training is that as businesses face more competitive pressures, they will in turn pressure school systems to do more of training. Their response to narrow profit margin will be to cut back on their own training program and to urge school systems to provide trained people for them.

School systems are going to be faced with pressure because of the continuing growth of nonconventional education. In the last ten years, there has been a rapid growth in manpower programs; a fusion of educational programs into the manpower program; special ghetto programs; and the growth of employer training and educational programs on the job. These are very direct threats to the school system because, in effect, they testify that the school system is not doing its job, and that other systems can educate more effectively. Whether the school system is going to respond to this challenge and improve itself, or whether the shift from conventional schools to these educational programs will continue is not clear.

Another important trend that we really haven't understood is the almost total decline in our faith in tests, credentials, and other methods of

evaluating people. The blacks have successfully contested the use of various kinds of testing systems for admission into schools and apprenticeship programs. Diplomas no longer mean what they once meant. The psychometric approach, which started before World War I and grew very rapidly, is increasingly questioned by educators and others. Many people still go through the motions, but the justification for the system is very much under attack.

The schools are under complete pressure to educate people regardless of measured IQ and past experiences. This is really the meaning behind the movement to open college admissions. In fact, it is now being said that the IQ measure defines the problem for which the educator has to deal, rather than the reason why he cannot deal with certain people. In effect, we are learning that the IQ measures social expertise and past educational experience, and has little to do with one's innate capacity. Therefore, someone with a low IQ is a problem with which the school has to deal, by giving him those experiences, background, and education which will put him on a par with those from other groups in society.

Another educational trend is toward mid-career education. Many people need to acquire new skills because of a great deal of flux in our industrial structure, including technological displacement, mergers, closing down of plants, and so forth. Irregular public programs, as in the case of space, literally force people to seek new careers in a cutback. A great many people will be coming out of military service over the next decade. Retirement plan for public employees increasingly encourage them to retire after twenty or thirty years at half pay. But these people don't simply retire; they usually want to work, and they often need skills. The pattern for women to return to the labor market after age 35 will continue. Also, if we get new public programs for pollution control or the like, they will probably include manpower

training programs to provide the needed specialists. Such will provide many opportunities to enter new fields in middle age.

What are the more specific problems of vocational education? First, vocational education is very expensive. If the educational dollar is going to be limited, there is going to be a great deal of soul-searching in budget offices of school systems concerning vocational education.

Vocational education has a special problem with plant obsolescence. Vocational training facilities suffer not only from physical exhaustion but also from obsolescence as the industrial technology changes. This presents a real planning problem, one that I am fearful is going to be approached on a piecemeal, half-hearted basis, which will be relatively wasteful.

Third, as far as vocational education is concerned, if the supply of teachers in general has improved, supply of people with industrial experience who can be converted into vocational and technical teachers will be much higher. The number of electrical and electronics engineers who will be employed is one-third less than it was a few years ago. Because of the defense and space cutbacks, there simply will not be enough jobs. This is potentially a vast resource of teaching personnel for vocational education.

The fourth problem area has to do with the competitive problem in and around the community colleges and technical institutes. If my reading of the job market is accurate, graduates from these programs are going to face very heavy competition from college graduates in many technical and related fields. Engineers are going back to the drafting boards in a way they haven't since the 1930's. On the other hand, in the case of continuing education, given the attitudes of American society, the community college enjoys something of an advantage. It is more attractive than the high school for adults. I suspect that the community college is going to emerge as the trainer of

middle-aged people.

Another important trend which will continue is the blurring of sex labels with respect to jobs. On the surface, this might mean that women are going into men's jobs. But the interesting thing is that men are also going into women's jobs. We will probably find more and more men entering office occupations, the health field, and so forth. This will be encouraged by the pressure for equal employment patterns by the Federal government.

Finally, we are slowly developing an understanding that we need some kind of manpower planning at the national level. We need a more stable pattern of national policy. Whatever the policies, we need to formally recognize the manpower consequences of our political decisions. We need to clearly anticipate the overall shortages and surpluses (i.e., unemployment) which result from each public program projected ahead for several years. We also need a planning system which anticipates specific occupational supply and demand situations, and therefore our training and retraining needs. This will help our manpower supply to change its contours as efficiently as possible to match the changing economic, technological, and political situation.

There is some evidence that we are beginning to build a national system of planning which will tell us what to expect at the state and local level, so we can have the particular program planning we need. The President's Economic Report in 1970 formally raised the question of how to allocate the entire national economy among the competing ends which our society seeks. The President's Manpower Report of 1972 will contain a general proposal for a more comprehensive system of planning the manpower consequences of public programs.

Until we have such national planning, state and local planning will be very difficult. Until we do this, local planners will have to expect unexpected

changes, and we have to plan so as to be able to adjust to such changes. We must make our institutions flexible, so that they can respond to newly developing situations. We must make our curricula flexible and try to help those who teach in vocational education programs to be able to respond to changing needs.

In a sense, I'm saying that because we have a changing world, our occupational training systems ought to be very changeable and ought to be more responsive. This, in a way, is contradictory. I complained before about how unstable and unpredictable our system is. Now I'm making it easier to be unstable and unpredictable. But I don't think we have any other choice. Change and unpredictability seem to be the nature of our society and economy. Unless and until we become a more thoughtful people, unpredictability will be the essence of our society and economy.

Considerations For Planning Improvements of Regional Vocational-Technical Schools

Herbert Righthand

I want to address myself to three questions this afternoon, first - Why plan, why should we hold a conference on planning? Secondly - What are some of the restrictions we have in planning? and thirdly, What should we be considering in our planning?

To the first point "Why plan", (I'm not so sure we can after hearing Dr. Hiestand) there are three points I'd like to make.

First, we must plan so that we can provide the most effective educational programs possible to the people of the State of Connecticut. We must set goals and devise methods for achieving them. We need a road map of where we're going and how we are going to get there.

Secondly, there are pressures mounting which are indicating to us that we must take a look at what we're doing and respond with positive programs of action. For example, it is being suggested that we provide prepayment for approved vocational programs. This is something that we're not opposed to, but right now with our staffing, it is an impossibility, and there is little chance that we can provide more staff. Oddly enough with the handicap of reimbursement, (which is the way we provide funds) in about 4 or 5 years our programs in local schools have grown tremendously. In addition, the Educational Committee of the Connecticut Industrial and Business Association too are telling us how we should run vocational education. We also have principals and superintendents from LEA's who want to know why we aren't doing certain things. So we do have to stop and evaluate the various aspects of our programs and try to develop programs that will go further and do more.

The third category of "Why plan" is that you have to plan, it's required, both by Federal and State governments. The State regulations which require planning arise from the requirements of "Managements by Objectives" and "Program Planning and Budgeting Systems", both are forthcoming as requirements for all state agencies.

We also have legislative evaluations and these are based on goals. For instance, a) one act requires all vocational programs to be evaluated and reported to the legislature. b) there's another act that requires all federally funded programs be evaluated and reported to the legislature. c) there's one that requires reporting all programs for the disadvantaged. d) there's one on bi-lingual programs. So these are the aspects of why we have to plan.

The second part of this presentation is, what are the restraints to planning and implementation. The first restraint is the lack of good manpower data. I think what Dr. Hiestand said may have disturbed us when he indicated that the manpower data is very inaccurate. But it is hard to forecast. The Federal Government says we should forecast five years away, yet it's hard to forecast even next years manpower needs. This is a serious restraint and that being the case which way do we go? Should we add, drop, or modify programs? We really don't have good hard data to work on.

There are both individuals and groups which place restraints on us. a) there are restraints from individuals. We have teachers who have developed curriculum, been teaching ten, fifteen, years and they don't see any reason for a change. We have school administrators, directors, and assistant directors who feel that they are doing a satisfactory job now. It's true that the boiler leaks and basements get flooded and a few other things go wrong but basically why change? We have people from the central office who

are Godlike creatures; consultants, bureau chiefs, assistant directors, directors, who have all the answers and throw restraints in your direction, sometime keeping you from doing the things you think you should do. We have a fiscal officer who considers restraint as being his primary goal.
b) then we have organizations to work with. We have teachers groups who may not let us do some of the things we think we should be doing. We have industrial and labor groups who have certain expectations of our schools.
c) we have physical restraints and by physical I mean it in a broad sense. First, there are our facilities, they are limited or they are rigid and you cannot change them. You also have individual limitations. In other words you cannot physically take your math teacher and have him teach art. Finally there is the fiscal problem which crosses all lines. You do need money to do some of the things that you have to do.

If I stopped at the restraints you'd say, "Let's go home now." But we've got to consider certain things that can be done without money and certain things that can be done with <u>some</u> money. Never the ideal situation.

What can you do without money? If you can imagine a situation in which you were told, "look, fire everybody you have, we'll give you the same budget and now start all over again," what would you do that's different? You would most likely come up with new ideas. But your not going to be in a position to fire everybody, yet thinking this way leads to an open mind, to an approach that may give you an idea of things that can be done. For example, what about changes in selection? You heard it from Dr. Hiestand that testing is not in its full strength and glory as it has been in the past. It is being challenged. Many of you are using the DAT for admissions test based on the doctoral study which only found a very moderate relationship with test scores and achievement. We are using a variety of tests in

our schools. Is it advisable to use these, or are there other ways to provide for selection?

How about your policy on student promotions? Your pass and fail approaches? Can they be changed? Are they forcing the students out or are they helping them to succeed? What are your problems in that area?

How about scheduling? Can the shop and related pattern be modified so it can serve more students or serve our present schedule more effectively?

How about cooperative work experience? We have two programs in existance, and one is really serving local schools, that's the one at Vinal Technical. We also have one at Prince Technical which is serving kids in auto body, but primarily because they don't have a shop at A.I. Prince. How about cooperative work experience for seniors? Would this relieve some of your shops? Would this make room for more students? Would it give them a better preparation than you can do in the school during the students last year?

How about the exploratory program? Is that program working most effectively?

How about the accuracy and thoroughness of your placement and follow-up? We depend a great deal on those reports. We're asked, when we refer to placement, "Who said that's accurate? What degree of accuracy? What degree of control are you exercising on this placement procedure?" No one knows whether we really have the hard data to back up our placements. I believe that you do have the hard data. Most of our records are accurate. This has been verified when we do a five or ten year follow-up. We find that it is consistent with what you find on the local basis.

Here's an area we are weak in -public relations. We are not getting our story across. Some of you have good relations with your local newspaper

and do get feature articles published but we're not getting the publicity that our critics get. What can we do to indicate that the area of vocational technical has been successful and still is successful; that the schools are moving and making changes? This is an area that needs planning and discussion.

Another very important consideration is, how is your relationship with the LEA (Local Education Agency)? I think it should be an open situation. Students from the VT school should be free to transfer back to the local high school should be free to transfer to the VT school. We should accept our role in assisting local high schools in their programs. We have to recognize occupational needs. Dr. Hiestand raised serious questions about data regarding the growth in office, health, retailing, and other service fields. He did state the latter will have the greatest growth. These are the fields where the local high schools have the greatest strength and ability to provide vocational education.

What about changes where some money is involved? We have already met with some of the directors to come up with ideas of an after school and/or a summer program that would serve the students from local high schools. This will require staff positions and money. Hopefully we can find this money.

We need a modification of an academic program. About five or six months ago at one of your directors meetings, the Task Force presented a plan that would radically modify your academic program. We have a very rich academic program. I feel we provide too much and with too much rigidity. We do not provide the electives which would be desirable. How can this be done? In some degree we may be able to do this if you have money. But even without money through attrition of positions, through some manipulating you might add courses. You might for example, add a distributive education course which I think should be in every high school and every vocational high school.

I would say that 90% of the people we train are going to deal with customers in one way or another. You might even have a person on your staff who is qualified in this area. You may decide that you no longer need as much math as previously. You might say, "I want a teacher who can teach distributive education, or maybe typing." That combination is not unheard of. You might consider itinerant teachers. One of your recommendations for curriculum change, suggested by the Task Force, was for the addition of music and art.

I'm suggesting that the students have to be given some curriculum flexibility, not the rigid structure that we have.

I mentioned the reassignment of staff and replacement through attrition. Can we use these opportunities to develop new and semi-skilled courses? Well, with the new courses we're kind of stymied if it requires new staff other than replacement. There are needs and perhaps you should be considering new areas. But another alternative exists. Within the skilled areas which you are providing is there a level for a semi-skilled worker? Can you absorb more people and provide semi-skilled training? How could that affect your academic program? If you take a boy into the machine shop whose only interest and his level of ability is to be a lathe operator, do you take him in at the 12th grade, or do you take him in at an earlier grade and if so what do you do with him for the three years?

These are problems that you have to face but you have to <u>plan</u> to face them. Shortening the school program, summer programs, after school programs, accelerated programs, use of cooperative work experience are just some of the alternatives. Maybe students can graduate in January 1976 through special programming. Each time you do this you help the boy get out into the field of work, at the same time you're providing slots in your shops so you can serve more students.

Now I did not attempt to cover all the restraints nor all the alternative solutions. I just indicated there are ways of getting around restraints. Non-fiscal ways as well as fiscal ways (we hope we can provide some additional funds) but I think that you do have a job of planning to do and that in these 4 days in your workshops you can come up with some concrete suggestions, and I hope these suggestions will be ones on which we can take some action. Thank you.

Progress Report on Previous Planning

Walter Bialobrzeski

There are many people here who have been to a number of conferences of the Regional Vocational-Technical Schools. A lot of work was done at these conferences, more than most of us realize.

In preparing for this presentation I reviewed some of the work done at these conferences and was pleasantly surprised with what I found. The suggestions in the reports may not have been implemented immediately, but over the years many of these have been implemented without our realizing it. Perhaps the most noteworthy conference ever held by the Division was the Middlefield Conference. Since then we had a good many other conferences. The last was in 1968 at Wesleyan. Its theme was Vocational-Technical Schools in Connecticut, Our Image and Outside Appraisal. At that conference the committees, Planning Committees specifically, invited critics and others who took a hard look at us and provided us with some ideas that were to be incorporated into the recommendations. The Wesleyan Conference produced six major recommendations. As a result, six Task Forces made up of staff members were established to come up with a plan of action. The plan of action of each Task Force was to include goals and time schedules.

Task Force Number 1 was to adopt a procedure of recruitment for minority group professional staff personnel. A second Task Force was appointed to adopt procedures aimed at admitting more minority group students in Vocational-Technical Schools. Task Force Number 3 was charged to develop a plan for persons with special needs and for providing remedial and supplementary services to train those who have the potential for satisfactory job performance but whose academic levels may be low. Task Force 4 was to restudy the High School Trade Preparatory Program. Task Force 5 was to develop a procedure

or plan of action aimed at providing greater utilization of existing facilities and Task Force 6 was to develop a plan to strengthen Community Relationship at the Local and Regional Level as well as fortifying an Inter-Agency understanding at the State Level.

The Task Forces met and in summary what they were charged to do was to take a look at the professional staff, at our students, our special programs, our program of studies, our facilities, and our PR System.

The Task Forces all completed their plan of action. Then the problem of implementing their plans of action confronted us. So lets take a look at the record and see to what extent the recommendations were implemented. During the past week the Central Office staff and I took the Task Force Reports and their plan of action and reviewed them. I asked the staff to list all of the recommendations coming out of those six Task Forces and then to put down what had been accomplished under each one of the recommendations; what we have failed to do; what we have started to do; and what we are working on now. These people, working independently, gave me their report. I went over these reports and felt that they were very conservative simply because we did not wish to favorably bias our record of accomplishment.

I thought today I would briefly review some of the recommendations with you to see what you think our track record is and to see what you think we should be emphasizing at this conference.

Task Force 1 - Minority Group Personality Recruitment. There were eleven major recommendations and frankly, our batting average is very poor. In fact, this was one of our poorest records. Of the eleven recommendations made we, A) Hired a recruitment officer as recommended, but I must add that he is not functioning in that particular role to the fullest capacity and

its not his fault. B) We also made some in-roads in getting minority staff members into our school. Some schools more than others, some schools not at all. C) We did indicate in one of the recommendations that all things being equal, the non-white should be given extra consideration. This has worked in some cases and in some cases has not. So in looking at Task Force 1, of the eleven items we did some work on three. This does not mean that all fifteen schools adopted all three recommendations.

Task Force 2 was to develop a procedure aimed at getting more minority group students into our schools. (I think our batting average is better than our staff indicated, but I am keeping to their score.) The staff reports that we only implemented one of these fourteen recommendations; we started implementing a few and didn't do anything with others. Let me read you some of these recommendations.

1) "Immediate expansion of Vocational-Technical Schools, especially those in areas where we have some population expansion." We have expanded the Eli Whitney, W.F. Kaynor, and the H.C. Wilcox Technical Schools, as well as a number of other schools. We also have plans for the expansion of other schools, so I think we have done well in this recommendation.

2) "Redistributing the Towns"; This is the second recommendation. Services by Technical Schools should be expanded so they may permit increased minority enrollment in schools. We have not done this statewide, but we have done it in several places. We transferred the students from the Naugatuck area into the Ansonia school. We have done this in other places as well, but not to the extent desired.

3) "Re-Evaluation of our Admissions Policies" was another recommendation. We have taken 85 to 90% of those Minority Groups that have applied, but the problem is that not enough applied. But this serves to illustrate that our

Admission Standards have changed somewhat in these areas.

4) Another recommendation: "Guidance Personnel be added to the Urban Schools to 250 to 1 as a ratio." At the present time we have three guidance counselors at Hartford, three at Bridgeport, and a number of schools have two. We are approaching the standard in these schools and in some cases we are better than that standard.

5) Still another recommendation was "Representation from Minority Groups, Consulting Committees and Craft Committees." We have done this, though not in every Craft Committee or Citizens Committee, but we are adding minority representation to these committees as quickly as conditions permit.

6) Another suggestion was that we expand and emphasize the athletic program to attract more students. We have increased our Athletic program. Every school now has a program that has at least three sports and some have as many as seven or eight.

7) In response to another recommendation we went into some urban areas. Two summers ago for example, we started a program called PASS in Hartford, where we took 90 minority group students who were below the acceptance level, and tried to prepare these young people so they could enter A.I. Prince in the Fall. Most were admitted.

Task Force Number 3 had to do with the Disadvantaged. We have done a great deal here but again not enough, but we could do a great deal more. We, for example, are conducting late afternoon programs (3:30 - 5:30) at E.C. Goodwin and Vinal Technical Schools. We have the YIPPEE Program at H.C. Wilcox, where Cheshire Correctional Institution inmates are bussed to the Wilcox school. We have programs for the Disadvantaged at Long Lane, Somers, and at the Federal Correction Institution in Danbury. In addition,

all of our programs as far as Manpower Development and Training is concerned are for the Disadvantaged. We haven't done much on the Secondary Level for Disadvantaged other than those at E.C. Goodwin and Vinal Technical Schools. We do have a Cooperative Work Experience Program at Vinal Technical School. We have a newly started program in Hartford in Auto Body. Also, we are planning more programs for the Disadvantaged in late afternoons in other schools.

The Fourth Task Force was charged with reviewing our program of studies. This Task Force completed a tremendous assignment. Some of the recommendations were:

1) Identifying the minimum needs in Mathematics and Science and Blueprint Reading, through available Trade Analysis and presenting them to Trade Committees for their edification before presenting these needs to the Program Study Committee and Directors for approval. As a result we have established minimum course requirements in Mathematics, Electrical, Electronics, Tool and Die, Machine, Carpentry, Auto Mechanics, Aviation Mechanics, Beauty Culture, Fashion Design, Printing, Painting, Decorating, Vocational Homemaking, and Food training.

2) Recommendation #2 had to do with minimum requirements.

3) Recommendation #3 has to do with Trade Analysis. We have done these things in 6 of the Trade Areas.

4) Recommendation #4 was the restructure of the Day School Program. We had also tried "tracking"; we have tried this in preparing the academically oriented students in Torrington, Waterbury, and Meriden. There is an enrichment track in most schools. However, we still haven't tried the Big Modular Program that was suggested. We made an attempt at it in Brigeport and now we are working with Windham to try to implement that entire program

in Modular Scheduling for this coming year.

5) Utilization of School Buildings, another recommendation where we have done a great deal. You may not realize this, but as you look at every school that has moved their Manpower Program into a Skill Center, space has been left for the Secondary School Program. Schools examplifying this are Stamford, Bridgeport, Waterbury, Hartford, and Norwich. We are utilizing our school buildings better too, by moving out some of our PTX Programs. For example, in Waterbury we've moved the PTX Programs to the Naval Training Center. This gives more space to the Secondary School Program. We are also utilizing buildings during the summer-time, particularly in the Naugatuck Valley Program in Waterbury, in Torrington, Hartford, and Ansonia. Our buildings are being utilized in delayed afternoon programs and finally, we have our regular Day Trade Program from 8 to 3 and our Adult Education Programs in most buildings from 7 to 10. We can do more, but we have moved quite a bit in this area.

The Final Task Force dealt with Public Relations. Here again we seem to have done fairly well locally. Our difficulty is at the State level. I get reports from all the schools on their Public Relations and I see it differs from school to school. It appears to me that the schools located in a rural community seem to get a better spread in the local papers than the schools in a urban community. On the other hand, there may be other P.R. activitites, at least as good as newspaper releases eminating from the urban schools.

I think we want to take a look at the Box Score, and as I look at the Box Score, there were 73 recommendations made at the Conference in Wesleyan and of those 73 recommendations, we've done something significant with 24 by that conservative count. We are working on seven other recommendations

so we are either working or have achieved about 40% of the recommendations. I think we rank higher than 40% in many of the implementations of the recommendations.

Now as I see it, this conference at the University of Connecticut, working with the problems of Vocational-Technical Schools really can be a follow-up of the Wesleyan Conference, as its recommendations and the addition of more dimension to some of the recommendations are already implemented. I don't think we have too many restraints implementing these recommendations. I think the key is that of "Cross Over." I think this is what we have to do; to work out a "Cross Over" between the Public Schools and the Vocational-Technical Schools. As a result of this conference, we should also come away with some idea of management by objectives and Planning, Programming, Budgeting, System.

As we leave this conference, I know one of the things that I am going to do and I suggest we each do one simple thing; that is, each one of us, in the Vocational-Technical Schools particularly, just write down one goal, one goal, and put down the time table when to complete it and we will continue to improve our program. I think we have done a tremendous job after Wesleyan Conference. We've reached approximately 30 goals and with the planning done here we will be able to move toward the completion of all of our Wesleyan goals.

I think any conference, and this one in particular, will renew the vigor, confidence, and a desire to fulfill the recommendations coming forth from the previous conferences. We should have some fun while we are here, enjoy ourselves, relax, and finally, we can't wait for a Master Plan, so let's begin somewhere. Thank you.

The following is an appendage to the remarks of Mr. Walter Bialobrzeski at the University of Connecticut Conference.

NORWICH CONFERENCE 1962

Of the 30 identifiable specific recommendations made, some twenty have been implemented. Examples follow:

1. Training for Industry be rewritten
2. Policy on 13th year as applied to Tool & Die and Aviation Mechnaics
3. Policy need for diploma after 12th year in 13th year programs
4. Establish 9th grade drafting exploratory
5. Barbering and Dental Assistant be made post secondary
6. Develop Adult Education bulletin and instructor guidelines
7. Revise Bulletin 33
8. Keep guidance position at 10 month level
9. Reclassify instructor to senior after 5 years

NORWICH CONFERENCE 1963

Of the 20 identifiable specific recommendations, some 15 have been implemented. Examples follow:

1. Extend Work Study wherever feasible
2. Review and up date teacher preparation programs
3. Establish Vo Ed coordinators for public schools
4. Extend service occupations for low achievers
5. Establish better opportunities for minority groups
6. Establish greater variety of programs in VT schools
7. VT grad to have advance standing in apprenticeship

FARMINGTON CONFERENCE 1966

Of the 30 identifiable specific recommendations, some 20 have been implemented. Examples follow:

1. Maintain the 50-50 week about system
2. Clarify policy on type and level of trade program
3. Add additional guidance counselors
4. Recharge curriculum committee to provide maximum help to students
5. Clarify conflict in admissions standards
6. Reorient staff to philosophy to VT Schools
7. Increase hourly rate of adult instructors

WESLEYAN CONFERENCE 1968

The results of the Wesleyan Conference cannot be completely assessed at this time. The various task forces appointed after this conference have made their reports and some of their recommendations are being implemented. Some are not possible and others will require more study and additional funds. It is fair to say that most of the recommendations have not been implemented at this time.

A Planning-Programming-Budgeting-System

Harriet L. Gesler

The pages which follow present some definitions and characteristics, qualities of a Planning-Programming-Budgeting-System. A PPB System is one in which judgments concerning resource allocation are based on a series of program decisions. Alternative approaches are considered and the best set of programs are selected in order to achieve the goals and objectives of the system. As goals and objectives are achieved, or missed, a reexamination of the programs of the system should point the way to ever better choices among the options.

A program budget differs from a line item budget in many ways. Perhaps the outstanding difference is the focus on measurable results of a program as opposed to a focus on costs such as salaries, equipment or other categories typical of a line item budget. As educators continue to develop and refine strategies for evaluating the effectiveness of educational programs and operations, the concept of program budgeting may well prove to be an extraordinary aid to skillful use of limited resources.

PPBS - WHAT IS IT?

PLANNING	-	Establishing objectives
PROGRAMMING	-	Combining activities and events to produce distinguishable results
BUDGETING	-	Allocating resources

PPB becomes a system when the parts are connected for purposes of analysis.

Harriet L. Gesler
Office of Departmental Planning
Connecticut State Department of Education
3/72

AN EDUCATION PLANNING-PROGRAMMING-BUDGETING SYSTEM

An education PPBS differs from a line-item budget in some significant ways. It involves planning a budget from a program orientation. Program goals are determined, program costs computed, and program effectiveness measured. Alternative routes for reaching a goal must be explored and the selection of which route to follow indicates the usefulness of PPBS forecasts as a decision-making tool.

*PPBS is:

1. Goal-oriented -	It raises questions about the basic purpose or reason for carrying on activities;
2. Future-oriented -	It provides a way to examine the effect that today's decisions will have on future needs and resources;
3. Comprehensive -	All pertinent costs are reflected in the operations being carried on;
4. Systematic -	It presents alternative courses of action, the costs and benefits of each alternative, the ability to see the results of trading-off one alternative for another.

*Paul L. Brown, Director
Bureau of Budget and Management
State of Wisconsin

THE SYSTEM *

Someone does	Staff	
Something to	Program	
Someone at a	Target group	
Time in a	Hours, days	5 year period
Place and in a	Schools, Departments	
Way	Talks, writes, consults, supervises, administers	

THAT PRODUCES MEASURABLE RESULTS

* Adapted from Edward Katzenbach
Raytheon Corporation

Elements of a PPB System

Input forecasts	: student enrollment by year : student enrollment by program : revenue by category.
Output	: a quantity of end results attributable to a program.
Indicator	: a measure of effectiveness of a program
Indicator gap	: the difference between what was estimated (desired) as a result, and the actual result.
Performance measure	: the relationship between the outputs and a criteria of quality or effectiveness.
Constraints	: decisions on programs (policy). : imposed by environment (students, revenue). : imposed by environment but not inputs (laws, regulations).

Program structure

I. Program area
  A. Program
    1. Subprogram
      a. Activities designed to achieve goals

Hierarchy of Goals

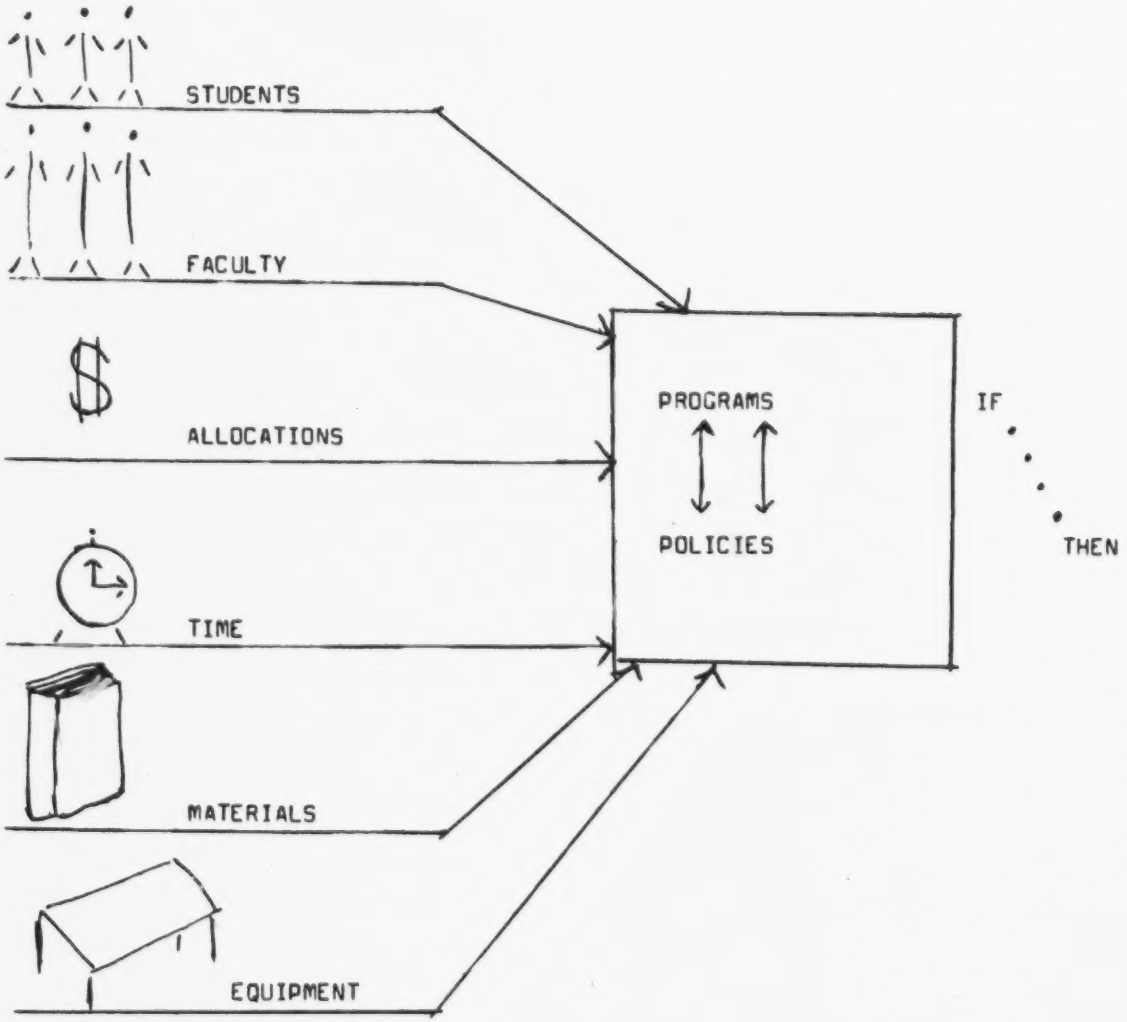
I. Goals of the Organization
  A. Purposes of program
    1. Objectives

Criteria: best chance for achievement (cost/benefit tradeoffs).

Program set: a combination of programs selected for optimum benefits.

SIMULATION TECHNIQUE

INPUTS | MODEL | OUTPUTS



DECISION-MAKING

ON A

RATIONAL BASIS

Steps to Initiate a PPB System

1. Define resources
   a. Population
   b. Revenue

2. Estimate level of indicators
   a. Describe present status
   b. Project for 5 years
   c. Identify gap between actual & desired levels

3. Make decisions
   a. Objectives
   b. Indicator levels
   c. Constraints - environmental
   d. Constraints - legal or regulatory

4. Determine potential sub-programs based on
   a. Policies
   b. Forecasts
   c. Problems
   d. Status

5. Check feasibility
   a. Manpower
   b. Revenues
   c. Space
   d. Others

6. Estimate inflation
   a. Enrollment
   b. Revenue
   c. Costs

7. Predict indicator level impact
   a. Estimate
   b. Delphi

8. Retrace #4-#8
   a. Cost/benefit tradeoffs

Constraints

I.	Ratio policies	
	1. Teacher/student	1:10
	2. Aide/student	1:5
	3. Administrator/teacher	1:100
	4. Clerk/teacher	1:100
II.	Allocation policies (per student)	
	1. Transportation	$160
	2. Materials and equipment	35
	3. Special Services	3
III.	Environmental	
	1. Average salary per teacher	$ 8200.
	2. Average salary per aide	4500.
	3. Average salary per clerk	5000.
	4. Average salary per administrator	18000.
IV.	Program Development	$50,000.
V.	General Support	$50,000.
VI.	Inflation factors (annual)	
	1. Student	1%
	2. Salaries	7%
	3. Transportation	3%
	4. Equipment	5%
	5. Services	10%
	6. Program Development	5%
	7. General Support	5%

Management by Objectives

Bernard Dolat

The process and procedures for implementing a Management by Objectives system can be approached in many ways. Currently, the Department has organized four task groups in an effort to improve the process and procedures of MBO.

The first task group is concerned with the formulation and review of objectives. The second group is charged with the area of management information. Resource allocation is the charge of the third group. Finally, a group is working with evaluation.

The four task groups and all others concerned with MBO in the Department have the advantage of a program structure which has evolved over approximately three years experience with a Planning, Programming, Budgeting System. Each program in the program structure of PPBS has a statement of objectives as well as other elementary parts of a MBO system such as a statement describing the program, a statement of the need for the program and a listing of indicators that help in judging how close one approaches the achievement of an objective.

Along with the advantage of experience with PPBS are the constraints of seven public acts of the 1971 General Assembly which require particular kinds of evaluation reports. For reasons of practicality the procedures of the MBO system should produce evaluation reports that conform to the mandates of the public acts. More extensive than just affecting evaluation reports, the public acts influence the nature of programs. For example, one act requires a report of all federally funded programs. Another act mandates an evaluation report of all programs dealing with the education of disadvantaged youth.

Intertwined in the MBO system is an emphasis on identification of outcomes. The objectives of programs are expected to be quantifiable. Indicators of performance are used to relate how close one has come to achieving an objective. The most important use of information about input is for management level persons to allocate resources in an attempt to affect the achievement of an objective. The more timely the information about programs, the more potential one has for monitoring and controlling the allocation of resources.

In short, the MBO system attempts to answer the questions: What are you doing and Are you achieving what you set out to do?

Connecticuts Job Future

David Pinsky

I'd like to try to paint with a broad brush the labor situation in Connecticut and some outlook of the period of the 70's.

First, the Connecticut Economy is something of a paradox. We have the highest per capita income in the nation, $5,026 in 1971 and we've been tops ever since World War II. The average family income was some $14,800 last year, also highest in the nation. And yet at the same time we have 150,000 unemployed.

We have been experiencing serious economic problems in 1971 and it may well continue into 1972 and '73.

My feeling of concern is based on the fact that the Labor Department just issued figures for January 1972 and these show that factory employment has fallen below the 400,000 mark for the first time since 1948. In fact, it's the lowest of any January since before World War II. The low point in '48 was during July, (we always hit a drop in July because of vacation shutdowns.)

Jobs in Connecticut have always depended on defense contracts. I traced it very carefully since World War II, but it can even be documented back to the Civil War. Following World War II in 1948 we had a big job drop; following Korea we had another big job drop; in 1958 following defense cutbacks after the Suez War another big drop; and the number of factory jobs did not increase substantially until Vietnam. We are tied to defense contracts. This suggests that if we don't have another shooting war in the next decade we're not going to get much of a rise in factory employment.

The most important segment of our economy and manpower is still the manufacturing structure. As well as having the highest economy in the nation

we've had the highest proportion of manufacturing workers of any state in the nation starting with World War II. That has now fallen off to where last year we were fifth. The latest figures indicate that at the start of 1972 we are going to be down even farther. We're no longer primarily a manufacturing state as such in terms of job opportunities. While factory production is still our basic support we no longer dominate the United States in manufacturing. Connecticut still leads in per capita defense contracts but we even don't know how long that will hold up.

On the other hand, if we look at nonmanufacturing employment going back to 1947, this has gone up almost continually with a few irregularities. The increase in this sector has been 300 thousand. Factory jobs in 1947 were 60% of the work force. In 1954 half the jobs were in manufacturing, following which the proportion has been continually declining. In 1956 manufacturing jobs moved up again and it moved up during the Vietnam conflict reaching a peak of 490,000 in 1968. Now it's not merely slumping but rather declining sharply. Connecticut has gone from 60% manufacturing in 1947 to 30% manufacturing today. An even more significant change is that of the structure of jobs within manufacturing which in total has dropped from 420,000 in 1947 to 394,000 in 1972. The proportion of production workers to total workers is down to 58% at this time, the rest being professional, technical, and administrative. The proportion of production jobs was 80% in 1947. The number of production jobs has fallen more than the total while professional, technical, and administrative jobs increased from 118,000 in 1947 to just double, 236,000 in 1971. So even though there is a falling off in total manufacturing there still is and will continue to be a need for technical and professional workers.

On the other hand, as you know, machines are doing the work of produc-

tion workers today, skilled, semi-skilled, and unskilled. In the last three years alone the state has lost 80,000 factory jobs. Now that's a tremendous drop. It's really somewhat remarkable we haven't felt it more in our economy. Off-setting that, however, has been a rise of 94,000 in nonmanufacturing so employment has held up although for future projections it is doubtful that we can increase nonmanufacturing jobs to off-set the drop in factory jobs.

What were the types of jobs where the rise has occurred in the last three years? The largest rise by far was in service jobs, 38,000, which included health services, (the largest single segment,) business services, garages, and repair services. The second largest has been government with 21,000 new jobs added in three years. That has leveled off during the past year. Why? Because the governments don't have money. We know the state government has leveled off its employment; Nixon announced a 5% cutback in federal jobs; and the cities and towns just don't have the money. The third is in retail and wholesale trade. Trade will continue to rise but not at as rapid a rate as previously.

Now, looking toward the future we have another dimension and that's the labor supply. During the decade of the 1950's there were some 29,000 youths who became 18 years of age each year and entered labor markets. During the 50's we felt the low birth rates of the depression years of the 30's. Since then Connecticut's birth rate shot way up. In the 70's we're going to have an average of 60,000 youths each year entering the labor market, doubling that which we've had before. This means we'll have 600,000 youths ready to enter the labor market during the decade of the 70's.

Now, if you talk in terms of labor force and take out the retirements, the withdrawals, the women who get married and raise families, the total

rise of the labor force will be 220,000 in the decade of the seventies. That means in order to provide jobs just for the increase in the labor force, (forgetting the 150,000 unemployed at present) we need 22,000 new jobs a year.

What is the record in Connecticut during the past 20 years during peace times? We've had an average increase of 10,000 new jobs a year. Subtracting that from the 22,000 labor force increase, we have a deficit of 12,000 jobs a year. This is beginning to show up even now. One way it's showing up is on unemployment figures nationally. The national unemployment average rate is 5.8%. In the youth range of 16 to 20 the unemployment rate is 16.3%, the range of 20 to 24 the unemployment rate is 12%.

Now look at college graduates. Of the University of Connecticut graduates last year half are still not working. College graduates are supposed to be in heavier demand than noncollege graduates, but they find the jobs just aren't there. Last year we had 14,000 graduates of all colleges in Connecticut, a rise from 6,000 in '65. Next year there will be 17,000 graduates who will be looking for jobs on top of the heavy unemployment of last year's classes.

On selected occupations there also will be significant changes. A health study we made indicated a large number of job openings in this field. Service occupations have provided a large area of job opportunities. How long will those health openings last? We don't know. A recent article in the Courant reports a survey which indicated that the community colleges, the technical schools, and many of the other schools are providing courses of training people for health occupations. The Courant article said that within two years there will no longer be a shortage of health occupation people because the schools are turning out so many so rapidly. As a self

protective measure those in health occupations are pushing for licensing regulations. They want to license workers in the health fields so that a surplus of employees will not develop. We did a study of the metal working industries two years ago which indicated a drop of some 8,800 skilled workers in the metal field. Machinists were predicted to drop by 5,090 and tool and die makers, which we thought would never be over supplied, a drop of some 1,900 workers. So we have to look to different concepts. We're moving from the area of the production workers to the professional, the skilled and the technical worker.

In concluding let me say that we're going to pile up more and more of a labor surplus among youths and it will be quite a problem finding employment for them.

Pinsky - Questions

Have you considered migration in your projections?

Yes, in a drop in labor force from 600,000 youths who are anticipated to seek entry into the labor force, we did consider migration among other factors. Reducing the increase of the labor forces to 220,000, we know the people are moving out of Connecticut. In 1970 and 1971 more people moved out of the state than moved in; the first time this has happened since the end of World War II and that may well exhilarate. Of course, if we migrated 200,000 people out of the state we'd be in good shape.

We also talked of a national job bank and why don't people move to other areas? In the first place there's a reluctance on the part of many to move and secondly other areas of the country are being hit just as we are so the time to move was during the prosperous period. Then you get jobs. Between '58 to '70 you could go any place in the country and get a job. Now that there aren't jobs elsewhere moving is not necessarily the solution.

Pinsky - Questions

Do you have any possible solution other than migration out of the state?

I don't like to give it as a solution as such but what I like to give as a trend and based on what's happening, I think this is the pattern which will evolve by 1980. First, earlier retirement, but we're going to have vastly increased retirement programs, including social security. Higher amounts of retirement income are necessary to induce people to retire at an earlier age level. The one positive factor is that increased retirement makes room for youth; secondly, youths will go to school longer and we know in 1965, I think 40% of the high school graduates went on to higher education and now its 70% so the youths are going on to schooling longer, for two reasons, one's the jobs require and secondly, it takes them out of the labor market; and third whether we like it or not we're going to have higher level welfare, probably higher level and more respectful. Part of the higher level, more special welfare, will be public welfare jobs. We don't call them W.P.A. At present there are only 200,000 such jobs throughout the country. This is a drop in the bucket. They're pressing now for 2 million. I don't know if we'll hit 2 million but I think this summer, in lieu of the election campaign, we may step those 200,000 service jobs up quite a bit. I don't know if this is the solution but I say these are trends which are appearing. These will not solve the employment problem but if they take effect, they may alleviate some of the hardships ahead of us.

A Challenge to the Regional Vocational-Technical Schools

Joseph Murphy

Prediction of the future is uncertain. Yet in spite of that uncertainty we're committed to making plans with the best information we can get.

We started this conference with an orientation to management by objectives. Whether we like management by objectives or not, state government is committed to it. We've only had an introduction at this time, but we will be working more and more with this process in the next 3 to 4 years.

In having the opportunity to move around the state, if I didn't know the vocational schools and the vocational people in them, I'd get the impression that all is not well. Jim Wild's observations seem appropriate; he said, "there must be something going right after all these years."

We have concentrated on many of the things that we see need to be done and I think all of us here feel free to express ourselves about things we can do. Many of the suggestions which we have been making at this conference have been said at other conferences and meetings. One universally repeated need across the country is the matter of communications; we need to make better use of the communications that we have. How do we see all the papers that cross our desks? We need to identify those that have the most significance and value to the schools. We could make quite a scale according to the significance of the topics presented in those papers. We need to identify those ideas which have a greater degree of fulfillment and those of lesser importance, then proceed to implement the better ones. I believe we need to look at those things which we can move immediately. So we need to identify what are the probabilities of action and success. Immediate and long range plans need to be set up on a time schedule.

In looking ahead, we still have a lot of homework to do. We can put a ribbon around some of the recommendations. Some of the fellows have already started working on this. They see that the planning schedule needs to be based on understanding some of the items which block progress; such as to the idea of double sessions; What are its merits? What are some of the blocks which get in the way? Are the blocks so great that we can't get over them or around them? Can we find some means of getting at them?

We have to develop priorities. We have to make some choices and take the more significant ones to work on. From there we need to develop some time schedules. What are some of the things that we should accomplish between July 1, 1972 and June 30, 1973? Can we set targets? Can we concentrate on certain items to move? If so, we can go on to other items.

C.A. Weber had part of his theory in Administration to tackle those problems in which there was some general consenses. You then have a greater degree of action as people move together on the things upon which they agree than they do upon those that are more disputable. There is quite a bit of discussion on budgets. As we project and modify budgets, hope always beats in our hearts on the number of students we're going to get. The trouble here is that the budget-people look at the budget a year later and they see that our hearts didn't beat as strong as they should have and since the budget is tied strictly to enrollments, they raise questions. Budget plans are laid two to four years in the future and as we seek dollars we need to plan some strategies to seek support for the budget. One which is important is working with others. This should include among others, local school districts, superintendents, industrialists, and business people. We could gain more support with state government. If vocational education is a need that the public wants, we're going to have to seek outside support. If a million dollars are cut, the people should know what the effects are on this service.

If vocational education is in the interest of the public we then have a chance to get the funds.

While I think we have done a lot of work here, we have a lot of work ahead of us. From this conference we have some ideas to help us plan together. Thank you.

Summary of Remarks

Commissioner William J. Sanders

Commissioner Marland's emphasis upon career education will extend the particular values of vocational education to many more students. It should replace the general education course which has not been successful and may, indeed, improve trade and industrial education.

T and I education has reached a high peak of excellence in this state through the separate system of vocational schools operated by the State Board of Education. Follow-up studies show that it is most successful in placing youngsters in the jobs for which they prepared. The schools have great prestige; for the most part, they cannot admit all qualified students who apply. Student morale is high, and there is no student unrest. The instructors who teach related work and academic work are effective in relating their classes to career objectives. In short, the learning situation for these committed students is ideal.

However, these schools are exclusive. Many more students ought to be able to take advantage of vocational education than can do so at the present time.

Also, the vocational-technical schools appear to constitute a parallel school system. Students are not in the mainstream. It is sometimes said that they are segregated from the students who are in the public schools, and there is a growing feeling that there should be a closer relationship between the vocational-technical schools and the public schools of the state. The courses of study in the vocational-technical schools are under close scrutiny all of the time and at present it seems that because of changing conditions certain changes lie ahead. Connecticut no longer has

on a national scale the greatest percentage of its working population employed in manufacturing. At the present time, it has been reduced from first to fifth place. Because of this and other changes in the economic picture for Connecticut, the emphasis on T and I education may become more general and placed upon clusters of trades.

Certainly, at this point the wisdom of enlarging T and I programs on the present basis is questionable.

A closer relationship is needed among the vocational-technical schools and the comprehensive high schools. There should be greater interchange of pupils and also there should be a greater emphasis upon vocationalism or career education in the public schools. The subjects taught in the latter should have greater relevance, and it is hoped that a conference such as this will result in vocational and general educators working much more closely together in the future than they have in the past to develop programs of education that are more paractical and effective for a greater number of youth.

Future of Vocational Education in Connecticut

A Panel Presentation

On Wednesday evening, the participants and staff of the Planning Institute dined together at the University Faculty Club. The evening program following the dinner was a closed circuit television talkback program on "The Future of Vocational Education in Connecticut" presented by the following panel:

Dr. William Sanders, Commissioner of Education, State Department of Education
Mr. John Sessions, Educational Director AFL-CIO, Washington D.C.
Mr. Kingsley Carpenter, Representative of the Connecticut Business Industrial Association
Mr. Joseph Dyer, Director, Connecticut State Employment Service
Dr. William Roe, Dean, School of Education, University of Connecticut
Mr. Joseph Murphy, Assistant Commissioner of Education and State Director of Vocational Education, State Department of Education
Dr. Richard Whinfield, Associate Professor, Department of Higher, Technical, and Adult Education, University of Connecticut, Moderator

The program presented by this panel, besides being a part of the workshop, was the concluding program of a series of six closed circuit television programs presented each Wednesday evening for six weeks channeled to six centers throughout Connecticut.

The members of the panel each gave a short presentation in the order listed above. This was followed by questions from each of the centers, responded to by the panel members.

The presentations and the questions are presented here as a summary.

Commissioner William Sanders observed that vocational education is generally being accepted by Connecticut citizens, perhaps more readily than is general education. He noted however, that in the high school program (including the vocational-technical schools) only about 8000 students are enrolled; that much more needs to be done to reach a substancially larger number of students. He observed the rather rapid development of new

vocational programs in the high schools; that there needs to be a strengthing of relationships between the vocational schools and the comprehensive high schools; and finally, that career education could be the vehicle to not only bring about such cooperation, but to give every student an opportunity to develop job awareness and job skills.

John Sessions called attention to the fact that career education would fulfill the long term objectives of the AFL-CIO. He read the following excerpt from an official AFL-CIO report:

> "Schools must prepare all students for the realities of the world of work. Such preparation can only be achieved through comprehensive organization of schools which bring together general education and vocational education beginning even in the elementary school years and continuing on through the Junior College level. Such a unified approach by giving all students at least some experience in skilled training and giving all students a solid foundation in English, Math, Science, and Social Studies, can do much to restore the dignity of labor, a concept which has often been lost in the schools of the past."

He then commented that the concept of bringing work training and basic education together is something which ought to open doors for all children.

But, he observed, his enthusiasm for the program was tempered by the failure of the Federal administration to approve full funding for vocational education. He further observed that there was some obtuse reasons being set forward for higher support of vocational education; primarily the argument that there are too many young people in college who would be better off in vocational education. He hoped that growth in vocational education would not be done at the sacrifice of support for higher education which is also an important educational program.

Kingsley Carpenter felt that vocational education is faced with unprecedented challenges. Technological advances, increased sophistication of jobs, new kinds of employment make the need for vocational training more necessary and requires that a better job of education be done.

He felt that there needs to be a closer cooperation between schools and industry. He illustrated this with the process being used in Connecticut whereby a three year welding program was being developed on a school-industry cooperative basis. He called for a greater effort in the fields of Science and Math, suggesting that students, particularly in trades and industry become aquainted with the metric system.

Joseph Dyer complimented the vocational system on its process since 1910. He felt the time had come when the schools with vocational programs needed to involve persons outside of education with their planning and development in a much more active way than in the past.

He made a particular plea for the returning veteran, observing that in a declining job market the veteran is seriously handicapped because he has not had the opportunity to develop civilian job skills. He suggested that schools could expand their services by operating on a twelve month basis, using double sessions and other devices to extend services.

He urged that action be taken quickly, but recognized that money, staff and leadership must be expanded.

William Roe made a strong point that the present situation suggests that we must prepare people to be "futurists"; that the past may be an inappropriate base on which to develop the future.

The School of Education is attempting to develop teachers and other staff who will look to the future to be able to adapt, adjust and cope with the massive changes which confront us, and to pass this skill on to the students in elementary and secondary schools. He observed that knowledge is increasingly parishable. Facts today may be myth of tomorrow. This requires that people, particularly leaders have "copability." Education can no longer be just understanding facts. The nature of the future, in a

super industrialized society, requiring changing skills. One skill is that of making predictions about the kinds of jobs people should be prepared for 20 years from now, predicting ethical and moral problems, and knowing the technology around us and how to use it effectively.

He cited five suggestions set forth by several authors:

1. The development of "council of the future" made up of citizens who will set aside the past and present and look to the future.
2. The development of "mobile" education, taking youngsters out of the classroom at least part of the time, and have learning take place in the community.
3. Development of a "mentor" system. Having adults available to help students learn to apply abstractions of text books to every day living.
4. Providing life long education for continual retraining and upgrading of knowledge and skills.
5. Ascribing to the principles of diversity. We no longer can teach to a system, but must teach to diversity, which penetrates into society and job.

Joseph Murphy summarized the panels observations. He noted the frequency of the panel observations about seeking new avenues for improving education; the concern for futurism; the need to work with a wide variety of people; the need for greater cooperation among various groups and institutions, particularly between school systems. He noted the observed need for increased money, not that it will solve the problem, but will help in making it possible to solve more problems than can be done with the present limits of money.

The need for continuing education "exit and entrance" and the particular problems of the veterans were observed as being of great importance.

He noted that there needs to be more "cross over" points for students. That students should have the right to change their minds and be able to enter different programs or have different alternatives at such time as is necessary.

And finally he called attention to thefact that vocational education should be available to all people.

Questions:

1. Several questions were raised about the labor unions interest, involvement and plans in regard to education. Mr. Sessions pointed out that unions are making great efforts, not always as great or successful as desired, to provide and support manpower training programs, to increase the representation of minorities and handicapped, to provide special education opportunities for young persons, not just through apprentice programs, but by offering classes, sometime run by the unions, sometimes done in cooperation with vocational education.

2. A question was asked about shorter vocational courses. Mr. Carpenter and Mr. Sessions both pointed out that there are many entry level jobs for which there should be corresponding vocational programs for these different levels.

3. Questions were raised about the kind of cooperation which should exist between vocational-technical schools and comprehensive high schools. Commissioner Sanders indicated that changes in education are slow to occur. He did not foresee a manditory cooperation between vocational schools and high schools. He expressed concern that many concepts of and in the vocational schools such as relating general education to jobs and careers needed to be introduced into the high schools. He called upon vocational education to be "missionaries" in helping general educators develop new skills and techniques to do the kinds of things vocational education has been doing for years.

4. On career education, Commissioner Sanders indicated that the development of career education in Connecticut was not to be an isolated activity but must permeate the whole system. Any specialists in this area will be charged to help bring about a total action from K-14.

Section II

Summary of Workshop Findings*

Proposed Activities for Improving Services of Regional Vocational-Technical Schools

A. Students
B. Curriculum
C. Staff
D. Administration
E. Planning for Implementation

*These recommendations are presented here without evaluation of their importance. These are the stated recommendations of the Institute. An effort is being made to quantify each of these recommendations in terms of their importance as perceived by the participants.

A

Students

1. State Vocational Education Division should appoint a full time person to do research to report back to administrators and staff of schools.
2. Guidance Counselors should assist in research.
3. Central office should start and maintain a student information bank.
4. Courses in sex and drugs need to be added or improved.
5. Introduction of remedial courses in math, science and reading.
6. Develop cooperative programs with the high schools. To allow both types of schools to serve more students.
7. Schools should be free to deviate from bulletin 30 to try and establish new programs.
8. Schools should be allowed to develop more flexibility in establishing course requirements for handicapped and disadvantaged.
9. Provide an alternative track for students who are marginal in the regular programs.
10. Provide longer and more effective exploratory programs before locking in on one curriculum.
11. Have enough guidance counselors to bring the number up to the recommended student/counselor ratio.
12. Provide double sessions.
13. Provide year round programs.
14. Provide summer exploratory programs.
15. Extend programs into "Satellite" or "Annex" schools.
16. Adopt the concept, or modification there of, of "school without walls."
17. Provide cooperative work experience programs.
18. Give "non-accepted" applicants short term trials or exposures of explorations.
19. Use cluster concepts for learning job skills to enable students to easily transfer from one job to another.

20. Provide inservice training programs for teachers, to bring them up to date in recent educational developments to enable them to more effectively serve student needs.

21. Allow seniors transferring in to graduate, yet not certify them as completing skilled training unless they continue into post graduate programs.

22. Do not classify students who leave school to take a job in their trade as dropouts.

23. Enlarge the scope of our thinking.

24. Don't teach just facts - teach relevant procedures - breakdown into smaller useful units.

25. Need to prepare students for rapid and constant employment change:
    a. train for flexibility and basic skills
    b. identify every technical area as related to a cluster
    c. teach specific skills only at the end of training
    d. teach manipulative skills in a variety of materials
    e. have courses in material characteristics
    f. end up with assembly and manufacturing as output point

26. Research student characteristics to construct a model of typical technical school.

B

Curriculum

1. Within the next three years conduct trade analysis to define minimum needs of related subjects.

2. Revise general education as well as skill requirements to meet student needs, rather than have students meet curriculum needs.

3. Have social studies organized as a group of short courses, providing student choice of such things as insurance, banking, labor market, taxes, voting, politics, etc.

4. Reduce math, science, social studies and English requirements by one period per week to make room for sex education, drug education, distributive education, typing and others.

5. Develop and implement plans for a remedial reading program immediately.

6. Appoint a committee to evaluate the relevancey of the grading system, considering Pass-Fail system, and "pass everything system." Set date for the committee to report back.

7. To insure implementation of new ideas, hold four meetings a year on a regional basis for each academic, related or other curricular area.

8. Use "Curriculum Day" for coordinating regional and state recommendations.

9. Establish competency tests which would permit students with advanced skills to take other courses.

10. Schedule students so they won't have the same teacher for 2 or 3 years in a row.

11. Have students take two years of general education in the high schools and have vocational-technical schools provide instruction in trades in grades eleven and twelve. (Could better provide for dropouts and post-graduates in the same program.)

12. Start a pilot program in one school of post high school only, keeping it for trade and vocational only.

13. Run a pilot program in one school with double sessions of shop, and single sessions of general and related.

14. Bring in Consultants who are expert in "Career Education" to advise academic teachers on how to relate their particular subject to students occupational interests.

15. Clarify recommended and desired use of Bulletin #30. If it is intended to be a "flexible" guide it is being interpreted too much as an absolute derective.

16. Provide selective specialization of regional schools so that each school would not have to teach all Technical and Industrial areas.

17. Conduct a pilot program of modular scheduling to open doors for curriculum change.

18. Since neither the comprehensive high school or the vocational-technical school have not been able to provide programs attractive to out of school unemployed youth of both high school and post high school age, conduct research to determine what these youth need and want.

19. Reduce administrative chore of director to permit him time for curriculum study and work.

20. Reactivate the program study committee to act as an agent for dissemination of innovative curriculum ideas. Good ideas abound in the system and need to be identified and shared.

21. Individualization of curriculum and teaching objectives need to be increased with attention to the relevance of each student's career objectives.

22. Students should be trained for local jobs.

23. Need more exact evaluation of students abilities and deficiencies.

24. Provide students with opportunities to be successful.

25. Avoid duplication of effort.

26. Take one vocational school and use it as an experimental unit. Turn general education back to local high schools. Use resulting square footage to convert space for more skill training, allowing more students to benefit from skill training.

27. Use 40 day summer session to bring students in for 11th & 12th year preparation.

28. Central office should plan and coordinate quarterly regional meetings for planning curriculum, remedial programs, and developing philosophy.

29. Central office provide regional reading specialists to work with schools and teach teachers how to teach reading.

C

Staff

1. Revise certification.

2. Provide apprenticeship for new trade teachers for learning teaching methods.

3. Have one central business manager to relieve administrators of a small part of the business responsibilities to provide more time for education and supervision.

4. Use committee rather than individuals to select and formalize hiring procedures.

5. Have formal contracts stating duration of evaluation period of new teachers.

6. Use performance rather than paper credentials for staff selection.

7. Standardize supervision by having director visit shops and classrooms a set number of times a year.

8. Have mandatory evaluation of teachers after first year of teaching, done by the central office.

9. Increase efforts to develop ethical and behavioral standard for non-professional and clerical staff in dealing with students.

10. Provide administrators and staff with a training program on interaction analysis to help them see how their own personal attitudes and hostilities are expressed and how they interfere with goal-oriented problem solving. (This would involve "sensitivity training" or "consciousness raising".)

11. Provide all vocational-technical schools with assistant directors to handle business management.

12. Allow teachers more involvement in policy making, budget planning and budget cutting.

13. Give teachers an opportunity to work with students outside of the classroom.

14. Exchange teachers with high schools for day, week or year.

15. Encourage teachers doing graduate work to become certified in another area thus permitting variations in teaching assignments.

16. Encourage monthly meetings between teachers of neighboring vocational schools.

17. Maintain reference library in each school for professional books and journals to provide staff with up-to-date developments in education.

18. Rotate membership in professional associations.

19. Exchange teachers with personnel from trades and industry.

20. Provide teachers with EPDA funded summer programs.

21. Provide a mechanism for following up the recommendations coming from this conference.

22. Renew practice of annual meeting between faculty and central office staff.

23. Provide for more teachers released time or "staff days."

24. Formal State Level orientation program for department heads.

25. Provide a manpower pool of waiting applicants.

26. Need to know teacher characteristics and problems, no present data.

27. Need for knowledge of staff teaching ability and training in teaching methods.

28. Teacher training institutions should have an important and continuing influence.

29. Need for more meaningful courses offered by the University School of Education including in-service training.

30. Need for college trainees of vocational education to get together with VT school administrators to clear up what is important and needed in course work.

31. Don't want industrial arts people teaching vocational education. Must have tradesman.

32. Trade teachers need to keep in touch with industrial techniques. Should get back into industry about every 5 years.

33. General education teachers need to become familiarized with trade procedures, might take shop experiences or more science.

34. Resolve the impass with reclassification which was promised teachers when they complete course work.

35. Student and peer evaluation of teachers in addition to supervisors evaluation is needed.

36. Recruitment is difficult because persons who make contact with prospective employees cannot offer him a contract. New schools should be permitted to hire prior to summer to allow summer orientation program.

37. Recruitment should emphasis search for minority group teachers.

D

Administration

1. Help administration understand the procedures and decision making process in obtaining money. (Central office P.P.B.S. may help)

2. School directors should have more control over their schools budget. It is now too much a mechanical-clerical chore. Accountability should be extensive.

3. Plan discussions between directors and public school officials concerning cooperation with high schools.

4. VT personnel should go to the industrial arts program in the summer of 1972.

5. Clarify the role of the assistant director.

6. Develop a committee to investigate the realities of administration.

7. Provide administrators with in-service training in management.

8. Provide administration with training in human relations.

9. Set up a continuous research project and provide a constant flow of factual information.

10. Communication on a continuing basis made to be led by the central office regarding available services from central office.

11. Hold administrators responsible for a planned public relations program.

12. Change the proportions of trade and academic instruction.

13. Determine alternatives for scheduling i.e. modular scheduling, block scheduling, etc.

14. Give department heads time to get into the classroom.

15. Clarify role of central office consultants.

16. Have central office consultants understand the role of the director.

17. Exchange jobs temporarily.

18. Free administrators to act as an educational leader eliminating or reducing managerial, clerical, and janitoral jobs. Better utilization of business service officer, building superintendent, and department heads.

19. Have educational decisions made by educators, not accountants.

20. Good administrators should be trained properly to do a good job of public relations.

21. Primary job of assistant director should be supervision and have responsibility for instructional program.

E

Planning for Implementation

1. Have central office plan a series of meetings between Vocational-Technical administrators and high school administrators with some representatives of teachers. Leadership is needed from the commission to promote this sort of cooperation.

2. Vocational-technical school directors should be required to actively participate in regional organizations of secondary school principals.

3. State office and higher administrative levels should explore the possibility of "satellite" or "annex" schools and the possibilities of locating vocational-technical schools and high schools together. Cooperation between vocational-technical schools and local high schools will require exploration by state officials because of local control of high schools.

4. In-service training of all sorts is needed:
   a. For administrators re: collective bargaining, school law and interpersonal relations.
   b. For administrators and teachers re: interpersonal relations, interaction analysis, role playing, latest theories of learning, counseling and curriculum planning.
   c. For counselor - exploratory skills and knowledge.
   d. For new teachers on teaching methods, student needs and individualized instruction.
   e. Central office and consulting services.
   f. New management techniques.

5. Staff should participate in planning for:
   a. Curriculum planning.
   b. Communication between teachers.
   c. Budget making.
   d. Priority setting.
   e. Since only a few changes can be implemented at a time, whole staff needs to set a small number of realizable goals.

6. Solicit innovative ideas and exemplary programs.

7. Because of rapid technological and social change, we need to install survey and information flow to people.
   a. One or more research persons in the central office to do studies and provide data and organize flow mechanisms.
   b. Person in Central office to write proposals, search for information survey business and trade needs, plan and report new and exemplary programs and new and emerging occupations.

8. Final report of this conference and its recommendations be fully publicized and reported to participants.

9. Action be taken on recommendations of this conference.

10. Feed back of reporting conferences be held in each school on the action taken.

11. Develop necessary process for management by objectives.

12. Review present bulletins and publications now in circulation implementing some of the ideas in them.

13. Reduce 4-6 year lag between planning and implementation.

14. Examine the suggestion for cooperation with local high schools and see what relevance it has today.

15. Plan for maximum facility use including cooperation with local high schools.

16. Cooperate with local recreation commissions and clubs to provide extra curricular activities.

17. Provide late afternoon courses for local high school students.

18. Provide related work experience such as aides in A.V. centers, bookstores, breakfast programs, day care centers, custodial aides, etc.

19. Work with middle school to help provide vocational programs in middle schools.

20. A tri semester plan might be used instead of two semester plan.

21. Use summer programs.

22. Need programed and individualized instruction for slow readers and students with reading difficulties.

Section III

Institute Evaluation

Evaluation

Evaluation of a program designed to result in any kind of action has its best measure in the existance or extent of the resulting action. Such a procedure is being planned for measuring this workshop and will be conducted within the next year. But even this may be too early to measure the conference effects, for there is a tremendous amount of work which would have to occur before noticeable changes can be identified and measured.

Even though the best evaluation may be made at a later date, the conference was designed with a built-in continuing evaluation, which started before the conference and was carried through to the end. The primary procedure of this evaluation was as follows:

I. To measure the pre and post conference perception of problems. An instrument with a five point Likert scale and an open ended question was used to determine the following (Appendix F-1)

   a. What importance did the participants attach to the topics, and to what extent did they feel they had covered these topics? An instrument with a five point Likert scale was used.

   b. An opportunity to state their goals for each topic, and an opportunity to measure whether the topics had been achieved.

II. Continual appraisal of how the conference was proceeding. The device used was one instrument which asked five yes-no questions and 3 open ended questions permitting participants to react to the conference as they wished. (Appendix F-2)

   a. Five questions were asked as follows:

      1) Was the workshop long enough to cover the topic?
      2) Did you get new ideas for your work?
      3) Did the panel stimulate your thinking?
      4) Did you contribute to the session?
      5) Will specific changes be made as a result of the workshop?

b. Three additional questions were asked requiring a statement response.

Summary of findings:

A. Pre-Post Evaluation:

1. On the preconference questionnaire, administered at the first session, about half of the total participants responded. (Many participants were unable to be at the first session.) On the post-test about 75% of the total participants responded. Since there were numerous changes of personnel during the conference this raises some question about the validity of the findings. Nevertheless, they are reported here for observation.

On the preconference questionnaire, participants were asked to circle a number from 1 to 5 to indicate what they considered the relative importance of each topic to be. On the post-test they were asked the same question to what extent the major objectives were met.

Their responses were tabulated and the frequency in each category was accumulated by Likert value. A total was obtained and divided by the number of responses, giving the mean. The results are indicated in Table 1.

Table 1

	Pre-test		Post-test	
	Number	Mean	Number	Mean
Planning	15	3.63	29	4.20
Administration	15	3.80	29	4.13
Staff	15	3.80	29	3.82
Curriculum	16	4.43	29	4.03
Students	15	4.28	30	4.10

This seems to suggest that the conference raised the concern and attitude of the participants toward these problems. However, on the pre-test and post-test, a correlation was also run on those who responded to both questions

to determine if there had been any change in the priorities given to the items. There was virtually none. Of the 23 who completed both questionnaires, the correlation coefficient was .98. Thus the best we can say is that the responding group which resulted in a generally higher mean for some items and slightly lower for others was not the result of the workshop, but the result of different groups responding.

2. General objectives:

Most of the pre-session questionnaires were filled out rather completely. The post-session questionnaires were virtually void of any specific statements. It is believed that the lack of post-session response was because most items had been covered in detail in the workshop and the respondents felt no additional comments were necessary.

Comments on the pre-session questionnaire were categorized as follows:

Planning

1) Establishing a clear statement of philosophy, goals, and objectives
2) Consensus with special problems
   a. How to use paraprofessionals
   b. Understanding PPBS
   c. Effects of Career Education
   d. How to develop better public relations
   e. How to expand services to provide for more students - in particular, cooperation with LEAs

Administration

a. Supervision
b. Budgeting and finance
c. How to establish relationships with LEAs
d. More effective utilization of time
e. Maintaining an optimistic attitude

Staff

a. In-service programs

b. Identify functional role of total staff

c. Have staff with philosophy of Vocational Education

d. Certification changes needed

Curriculum

a. Remedial reading programs needed

b. Flexibility in scheduling

c. Electives for students

d. How to interact with LEAs

e. Stress importance of relationship between general and vocational subjects

Students

a. Provide different kinds of programs

b. Individualize instruction

c. Flexible scheduling

d. Prepare students by clusters

e. Increase minorities

f. Match interests and aptitudes

B Ongoing Evaluation:

Rather than reviewing the ongoing evaluation by displaying tables for each session, just one table is shown which summarizes all the sessions. (table 2.)

Table 2

	YES	NO	?
1. Was the workshop long enough to cover the topic?	64	90	2
2. Did you get any new ideas for your work?	117	35	1
3. Did the panel stimulate your thinking?	130	23	1
4. Did you contribute to this session?	124	16	2
5. Will any specific changes occur as a result of this workshop?	67	29	59

Observation of Responces:

By and large, the workshops were not long enough to cover the topic. (question one) One particular topic was felt to be too short; the one for the workshop on "student needs". Thirty of 36 persons felt this was too short.

The getting of new ideas (question 2) appears to have been a positively perceived function of the workshop. There was little variation of this among the workshops sessions. The workshop on "planning" had the lowest percentage of participants feeling they had gained new ideas.

There apparently was a high level of thought stimulated in the workshops. (question 3) One would hope for total positive response, but this is unlikely. The one with the lowest stimulation appeared to be the workshop on "staffing", where a little less than one-third felt they were not stimulated.

Most persons in most workshop sessions felt they had contributed. (question 4) In staff and curriculum, there were no persons who felt they hadn't contributed, and only one person in administration felt he had not contributed. The rest were about evenly split between students and planning.

Finally on the last question, there was considerable dispersion. Since it is a response to a speculative question, it may be a reflection of willing-

ness to do, or not to do some things; confidence in the central office; follow through by the University, or just an uncertainty about the future - perhaps all forces.

Questions 6, 7, and 8, being responded to with individual observations, the following represent a series of summary statements:

A. What changes are expected? (question 6)

1. Students

a. More students will be served by V-T Schools

b. Studies will be conducted with resulting criteria changes (Information bank on students)

c. Curriculum will be re-evaluated

d. Bulletin 30 will be changed

e. Permit directors to institute curriculum changes to meet over-all needs of students

f. Starting new projects

2. Curriculum

a. Better feedback and evaluation of need for curriculum changes

b. In-service training for teachers

c. Re-evaluation of programs and schedules

d. Articulation between V-T Schools and LEAs

3. Staff

a. A pilot program to train subject competent instructors via an apprenticeship system

b. A happier, more enthusiastic staff if the recommendations are implemented

c. Better recruitment and selection procedures for staff members

d. The establishment of formal staff selection and interviewing procedure

4. Administration

   a. New budgetary procedures (PPBS)

   b. Closer coordination with LEAs

   c. New schedule to allow V-T Schools to serve more students

   d. More emphasis on setting priorities

   e. Review the role of the administrator

5. Planning

   a. Realignment of V-T and Central Office personnel

   b. Better planning follow-up and setting goals and accountability

   c. Need to develop new vocational areas

   d. Better cooperation with other administrators of educational programs

   e. New concept of how educational change may be effected

The response to question seven- what were the participants' feelings about the general usefullness of the particular sessions? - can be summed up as follows. The responses range from "This is just the beginning of a new era in Vocational Education" to "Nothing new advanced." However, a general reading of the replies indicate there was a generally high level of satisfaction with the workshop.

Further Evaluation

Since this workshop was designed to produce tangible results, a continuing evaluation is planned during the next year.

The process of this evaluation will be to determine the kinds of changes which took place or what procedures for change have been developed, and whether or not, or to what extent these changes and procedures were the result of the workshop.

APPENDIXES

Appendix A

The Institute Program

Tuesday - March 14, 1972

Lounge	9:00 - 9:30	COFFEE
*Room 7	9:30 - 10:30	PANEL 1 - *Meeting Student Needs*
**Room 7	10:30 - 12:00	WORKSHOP 1 - *Meeting Student Needs*
	12:00 - 1:00	LUNCH
Room 7	1:30 - 2:15	PANEL 2 ..... *Curriculum*
Room 7	2:15 - 4:30	WORKSHOP 2 ..... *Curriculum*

Wednesday - March 15, 1972

Lounge	9:00 - 9:30	COFFEE and ORIENTATION
Room 7	9:30 - 10:45	PANEL 3 ..... *Staff*
Room 7	10:45 - 12:00	WORKSHOP 3 ..... *Staff*
	12:00 - 1:00	LUNCH
Room 7	1:00 - 1:30	WILLIAM J. SANDERS *Commissioner of Education* *Conn. State Dept. of Education*
Room 7	1:30 - 2:00	PANEL 4 ..... *Administration*
Room 7	2:00 - 4:30	WORKSHOP 4 .... *Administration*
Room 7	5:30	DINNER *Faculty Alumni Center*
	7:30	A special closed circuit talk back television program: *Vocational Education in the Future* Room 320 - Business Administration Building

Thursday - March 16, 1972

*Room 7	9:30 - 10:15	JOSEPH MURPHY *Director of Vocational Education* *Conn. State Dept. of Education* PANEL 5 - *Planning for Implementation*
**Room 7	10:15 - 12:00	WORKSHOP 5 - *Planning for Implementation*
	12:00 - 1:00	LUNCH
Room 7	1:00 - 2:30	REPORT OF WORKSHOP CONCLUSIONS Panel of Workshop Leaders
Room 7	2:30	CONFERENCE SUMMARY RICHARD W. WHINFIELD

* *Panels will be composed of Connecticut Vocational Educators.*

** *Following workshop meetings, 15-20 minutes will be given to reporting back progress.*

THE INSTITUTE OF

PLANNING VOCATIONAL EDUCATION

sponsored by

THE UNIVERSITY OF CONNECTICUT

and

THE STATE DEPARTMENT OF EDUCATION

"Centered around key problems of the Connecticut Regional Vocational-Technical Schools. The conference will aim at establishing workable objectives for solving some of these issues."

workshops, classes, discussion, and instruction are in

THE MERLIN D. BISHOP
CONTINUING EDUCATION CENTER
Storrs, Connecticut

MARCH 13-16, 1972

THOMAS J. MESKILL
GOVERNOR

STATE OF CONNECTICUT
EXECUTIVE CHAMBERS
HARTFORD

MESSAGE FROM GOVERNOR THOMAS J. MESKILL

The need for realistic educational planning has been brought into sharp focus in Connecticut during 1971.

Our "Constitution State" is known as an industrial leader in the USA. In order to sustain our industrial capabilities, we must maintain a high level of skilled manpower. Thus, our economic development will be assured.

By training our youth to fill available job requirements, we are helping them prepare for a meaningful and rewarding life, resulting in better services to the community.

On behalf of all the citizens of our State, I wish the participants of this Vocational Planning Workshop successful and fruitful deliberations.

GOVERNOR

March 13, 1972

"Not Everything That is Faced Can Be Changed;

Schedule for the Institute on Planning Vocational Education

Monday - March 13, 1972

Lounge	9:30	REGISTRATION and COFFEE: MERLIN D. BISHOP CENTER
Room 146	10:00 - 10:15	WELCOME and INTRODUCTIONS .... DEAN ROE
Room 146	10:15 - 10:45	GOVERNOR'S MESSAGE
Room 146	10:45 - 11:00	BREAK
Room 146	11:00 - 12:00	KEYNOTE SPEAKER DR. DALE L. HIESTAND *Professor of Economics, Columbia University*

Topic: *The Economic and Social Environment of the Next Decade: Implications for Vocational Education Planning.*

"Professor Hiestand will outline what appear to be the most important economic, social, political, and governmental tendencies over the next decade, in terms of their relevance for education and vocational educational planning. He will stress the potential for and limitations on planning, and the implications of his analysis for the character of vocational educational programs which will be needed and feasible."

	12:00 - 1:00	LUNCH
Room 146	1:00 - 1:30	CONFERENCE ORIENTATION RICHARD W. WHINFIELD
	1:30 - 2:30	RESTRAINTS ON OPERATIONS: HERBERT RIGHTHAND *Assistant Director, Division of Vocational Education* WALTER BIALOBRZESKI *Chief, Vocational Schools*
Room 146	2:30 - 3:45	MANAGEMENT BY OBJECTIVES: BERNARD DOLAT & HARRIET GESSLER *Consultants, Office of Departmental Planning*
Room 146	3:45 - 4:30	ORGANIZATION OF WORKSHOPS RICHARD W. WHINFIELD

But Nothing Can Be Changed Until it is Faced."

Appendix B

Letters of Invitation

The University of Connecticut

STORRS, CONNECTICUT 06268

SCHOOL OF EDUCATION

Dear Colleague:

The Department of Higher, Technical, and Adult Education of the University of Connecticut, in cooperation with the State Division of Vocational Education of the State Department of Education is pleased to announce a one week spring workshop on Planning Vocational Education. The program is designed to assist persons associated with Regional Vocational-Technical Schools to plan for future developments.

The conference will be centered around key problems of the Regional Vocational-Technical Schools (which we ask you to identify on the enclosed form.) The conference will aim at establishing some objectives for solving some of these problems. It will be a working conference with all participants having an opportunity to make contributions. We are anxious to have you present.

The conference is scheduled from March 13-16. Costs for the conference, including housing, food, and transportation will be covered for all persons in attendance. Up to seventy persons will be admitted to the conference. Please complete the attached form and the brief questionnaire not later than January 25, to let us know whether or not you plan to attend. Even if you can't attend please complete the questionnaire.

Upon receipt of the enclosed application we will send more detailed information. Because of your involvement in planning vocational education, and in order to provide you with enough lead time to include this on your schedule, we are anxious to have you know about the conference. If you have further questions, please feel free to contact me at 429-3311 -Ext. 763.

Fill in the form now and return it as soon as possible in the enclosed envelope.

Yours truly,

Richard W. Whinfield

Richard W. Whinfield
Conference Director

RWW:mt

Enclosures

The University of Connecticut

STORRS, CONNECTICUT 06268

SCHOOL OF EDUCATION

March 2, 1972

To Conference Participants:

Enclosed is the program for The Institute on Planning Vocational Education to be held at the University of Connecticut, March 13-16.

In addition to the program is a rating sheet, the purpose of which is to have you identify the problem you feel to be in great need of solution. Please fill this out at your very earliest convenience and return it along with the housing questionnaire in the enclosed envelope. We have also included a bibliography on planning. While this will not be an important part of the workshop, we hope you will find it useful in the planning you will be doing in the future.

We are looking forward to a conference which can make a difference. Your participation is greatly appreciated.

See you bright and early on the 13th of March!

Yours truly,

Richard W. Whinfield

Richard W. Whinfield
Conference Director

RWW:mt

Enclosure

Appendix C

Preconference Questionnaires

1. Questionnaire to establish relative importance of problems
2. Ranking of problems by participants

Name_____Position_____

Address_____Town_____Zip_____

Telephone No._____ I plan to be in attendance_____
I cannot be in attendance_____

Return to: Dr. Richard W. Whinfield, Conference Director
Department of Higher, Technical, and Adult Education
U-93 The University of Connecticut
Storrs, Connecticut 06268

Pre-Conference Questionnaire

In order to make the conference as meaningful as possible we would appreciate your response to the question below.

Upon receipt of these from all participants we will summarize them and return to you for further comment and modification. In this way we hope to identify the major concerns which will become the focus of the conference. Your response is important to maximize the relevance of this conference.

Please list in brief sentence form two or more (not to exceed 10) major problems of concern to all schools and which should receive priority attention in developing the most effective service to the population of Connecticut by the Regional Vocational-Technical Schools. If necessary please write on reverse side.

PLEASE RETURN BY JANUARY 25

PLANNING WORKSHOP

IDENTIFIED PROBLEMS

1)questionnaire to establish relative importance of problems

Attached is a listing of the problems identified by the participants of the Planning Workshop. We have condensed them and restated them.

We would appreciate your ranking each item based on its relative importance, 1 being low and 5 being high. Please return these along with your housing request at your earliest convenience.

	Low				High
	1	2	3	4	5
1. What steps should be taken to prepare students for service occupations?					
2. How do we expand to provide services to more youth not now being served?					
3. What alternatives exists for coordination with other high schools?					
4. What in-service training should our staff and administrators have?					
5. What is the role of the technical school in providing career education?					
6. How do we develop better public relations programs?					
7. How can we make use of itinerant instructors?					
8. How can we provide remedial instruction in areas of Math and English?					
9. How do we better articulate tech curriculum with sending school curriculum?					
10. What should the budgeting and financing patterns be in our school?					
11. How can we get staff for summer programs?					
12. How do we increase facility security?					
13. How do we implement plans we made in previous conferences? In this conference?					
14. How do we make course offerings (trade) relevant to changing needs of business and industry?					

	Low 1	2	3	4	High 5
15. How can we schedule to maximize service to larger numbers of youth and adults?					
16. How can we provide students with more supportive services (i.e. teacher aides, para professionals, psychologists, etc.)?					
17. How do we effectively plan with other high schools for better articulation and a wider variety of programs in work-study, coop, etc.?					
18. What can be done to provide relevant programs for adults--upgrading, pre-employment and under employment?					
19. How do we better identify business and industrial needs?					
20. Are there better ways of servicing youth than through a year of high school? 10-11? regional schools? satellite schools? summer schools? use of high schools shops? etc.?					
21. What are admissions policies which would serve more and different people? How can we improve student evaluation?					
22. How can we provide for continuing up-grading of curriculum?					
23. How can we schedule electives?					
24. What is meant by innovative programming? How do we effect it?					
25. How do we provide for greater flexibility in curriculum in VT schools?					
26. How do we reduce the time span between an idea and its implementation?					
27. How do we involve the rest of the staff in planning?					
28. What can we do to either accomodate or see that vocational programs are provided for the 'turn aways'?					
29. Can we provide short term courses? If yes, how?					
30. How do we make better use of advisory committees?					
31. How do we provide a wider range of exploratory programs?					

	Low				High
	1	2	3	4	5
32. Can we provide work-study programs? If yes, how?					
33. How do we increase flexibility to allow for handicapped and disadvantaged students to profit from instruction?					
34. How do we organize and utilize advisory committees?					
35. What are the advantages and disadvantages of utilizing volunteers, para professionals, teachers aides, etc.?					
36. How can we best evaluate and update curriculum?					
37. How can we anticipate change and plan accordingly?					
38. How can we determine whether a student needs a regular program or a special program?					
39. How can we improve effectiveness of clerical help in supporting administration, guidance, library, and faculty?					
40. How can we expand job offerings?					
41. In what way or ways can staff become involved in a more meaningful way in planning?					
42. How do we improve the exploratory program?					
43. Is the conclusion of the 8th grade the best time for youth to make an occupational choice?					
44. How can we increase the effectiveness of supervision and administration personnel? Can we define the duties more accurately?					
45. How can we accelerate learning?					

Students

2. Ranking of problems by participants	Sum Scores from questionnaires
1. How do we expand to provide services to more youth not now being served?	137
2. How can we provide remedial instruction in areas of Math and English?	123
3. How can we provide students with more supportive services (i.e. teacher aides, para professionals, psychologists, etc.?)	113
4. What are admissions policies which would serve more and different people? How can we improve student evaluation?	104
5. What can we do to either accommodate or see that vocational programs are provided for the "turn-away"?	116
6. How do we increase flexibility to allow for handicapped and disadvantaged students to profit from instruction?	110
7. How can we determine whether a student needs a regular program or a special program?	95
8. Is the conclusion of the 8th grade the best time for youth to make an occupational choice?	93

Curriculum

		Sum Scores from questionnaires
1.	What steps should be taken to prepare students for service occupations?	132
2.	What is the role of the technical school in providing career education?	109
3.	How do we better articulate Tech curriculum with sending school curriculum?	120
4.	How do we make course offerings (trade) relevant to changing needs of business and industry?	113
5.	What can be done to provide relevant programs for adults---upgrading, pre-employment and under employment?	108
6.	How can we provide for continuing upgrading of curriculum?	111
7.	How do we provide for greater flexibility in curriculum in VT schools?	107
8.	Can we provide short term courses? If yes, how?	98
9.	Can we provide work-study programs? If yes, how?	106
10.	How can we best evaluate and update curriculum?	106
11.	How can we expand job offerings?	97
12.	How do we improve the exploratory program?	108
13.	How can we accelerate learning?	107

Staff

		Sum Scores from questionnaires
1.	How can we increase the effectiveness of supervision and administration personnel? Can we define the duties more accurately?	108
2.	In what way or ways can staff become involved in a more meaningful way in planning?	114
3.	How can we improve effectiveness of clerical help in supporting administration, guidance, library and faculty?	108
4.	What are the advantages and disadvantages of utilizing volunteers, para professionals, teacher aids, etc.?	85
5.	What in-service training should our staff and administrators have?	103
6.	How can we make use of itinerant instructors?	109
7.	How can we get staff for summer programs?	110
8.	How can we increase faculty security?	91

Administration

		Sum Scores from questionnaires
1.	What alternatives exist for coordination with other high schools?	137
2.	How do we develop better public relations programs?	128
3.	What should the budgeting and financing pattern be in our school?	113
4.	How can we schedule to maximize service to larger numbers of youth and adults?	129
5.	How do we better identify business and industrial needs?	107
6.	How can we schedule electives?	92
7.	How do we reduce the time span between an idea and its implementation?	109
8.	How do we make better use of advisory committees?	102
9.	How do we increase facility security?	91

Planning

		Sum Scores from questionnaires
1.	How do we implement plans we made in previous conferences? In this conference?	119
2.	How do we effectively plan with other high schools for better articulation and a wider variety of programs in work-study, coop, etc.?	112
3.	Are there better ways of servicing youth than through a year of high school? 10-11? regional schools? satellite schools? summer schools? use of high school shops? etc.?	96
4.	What is meant by innovative programming? How do we effect it?	89
5.	How do we involve the rest of the staff in planning?	108
6.	How do we provide a wider range of exploratory programs?	96
7.	How do we organize and utilize advisory committees?	102
8.	How can we anticipate change and plan accordingly?	118

Appendix D

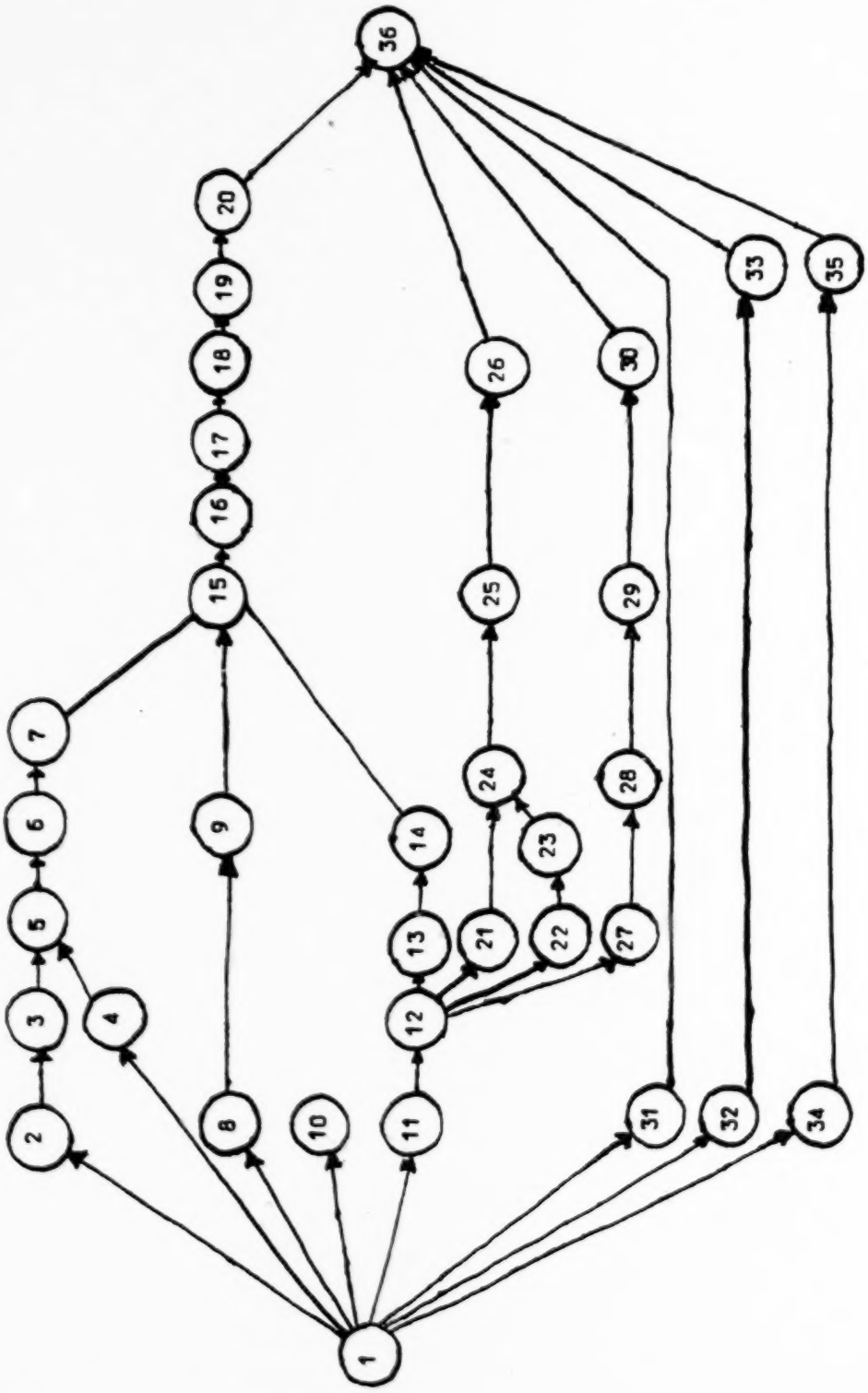
PERT System for Planning of Institute

PLANNING VOCATIONAL EDUCATION

P.E.R.T
Events

		DATE to be completed
1.	Start Conference Planning	1-3-72
2.	Prepare invitation lists including card punching	1-7-72
3.	Prepare mailing list (1. Invitations 2. Survey 3. Delphi (3)	1-10-72
4.	Prepare letters of invitation (include date to be returned)	1-3-72
5.	Mail invitations	1-11-72
6.	Select staff	2-1-72
7.	Develop roster	1-24-72
8.	Develop bibliography	1-17-72
9.	Print bibliography	1-24-72
10.	Prepare Delphi Questionnaire #1	1-4-72
11.	Appoint advisory council	1-11-72
12.	Meet with council	2-11-72
13.	Identify materials to be sent prior to conference	2-18-72
14.	Collect pre-conference material	2-25-72
15.	Mail out pre-conference packet (include first Delphi)	1-18-72
16.	Tabulate results	2-1-72
17.	Prepare Delphi (and mail) questionnaire #2	2-8-72
18.	Tabulate results	2-22-72
19.	Prepare Delphi questionnaire #3	2-29-72
20.	Prepare Delphi Report	3-9-72
21.	Establish agenda and workshop procedures	2-15-72
22.	Identify Key presentations	2-25-72
23.	Contact presentors	2-28-72
24.	Prepare workshop material	2-22-72
25.	Gather presentations	3-9-72
26.	Reproduce presentations	3-11-72
27.	Prepare internal evaluation materials	2-29-72
28.	Prepare evaluations for end of workshop	2-29-72
29.	Print evaluation forms	3-6-72
30.	Prepare follow-up evaluations	2-29-72
31.	Clear housing and facilities	2-1-72
32.	Identify reporters	2-1-72
33.	Employ reporters	2-15-72
34.	Prepare forms for reports of expenditures	2-1-72
35.	Print expenditures report forms	2-13-72
36.	Start conference	

PERT NETWORK FOR PLANNING INSTITUTE



Appendix E

Priority Ranking Instruments

Planning Questionnaire

To Establish Priorities of Action

Directions: Please read each statement and indicate with a check mark on the scale on the right how important the item is <u>in your opinion</u>. 1=little importance, 2=some importance, 3=moderate importance, 4=important, 5=very important.

		1	2	3	4	5
1.	Develop necessary process for implementing management by objectives.					
2.	Prepare special programmed and individualized instruction for slow readers and students with reading difficulties.					
3.	Initiate more extensive meaningful summer programs.					
4.	Examine the suggestion for cooperating with high schools to reach more students.					
5.	Expand and/or develop late afternoon programs.					
6.	Work with middle schools and junior high schools in providing vocational education.					
7.	Provide related work experience programs.					
8.	Examine facility utilization to maximize opportunities for students.					
9.	Plan a series of meetings between vocational-administrators and high school administrators.					
10.	Conduct trade analysis to define minimum needs for related subjects.					
11.	Revise certification.					
12.	Have full time researcher employed by state office to conduct and report research.					
13.	Develop necessary process for implementing budget processes (P.P.B.S.)					
14.	Revise general education and skill requirements to meet student needs rather than students meeting curriculum needs.					
15.	Provide apprenticeships or internships for new teachers.					
16.	Have central office start and maintain a data bank on students.					

	1	2	3	4	5
17. Clarify role of assistant director.					
18. Explore the possibility of "satellite" or "annex" schools.					
19. Modify the academic curriculum a) reduce math, science, social studies, and english by one period a week. b) provide sex education, drug education or distributive education. c) have social studies (perhaps others) organized as a group of short units, providing students with choices (i.e. insurance, banking, politics, etc.)					
20. Use committees rather than individuals for the selection of staff.					
21. Introduce remedial math, science, and reading courses.					
22. Provide inservice training for administrators a) management b) human relations c) budgeting d) public relation e) dicision making f) collective bargaining g) school law h) theories of learning					
23. Evaluate the grading system.					
24. Use performance rather than paper credentials for staff selections.					
25. Schools should be allowed more flexibility in establishing course requirements, particularly with the disadvantaged.					
26. Study alternative class scheduling techniques.					
27. Have school staff involved in the planning process within the school.					
28. Hold meetings each year for each curricular or subject area.					
29. Have manditory evaluation of teachers after first year, done by central office.					
30. Provide alternative tracks for students who are marginal in regular programs.					
31. Develop a process of continual supervision of teachers.					

	1	2	3	4	5
32. Develop a systematic communication system between central office and schools.					
33. Establish competing tests which would permit students with advanced skills to progress faster, or take additional course work.					
34. Increase efforts to develop ethical standard of behavior for non professional staff in dealing with stude s.					
35. Develop longer, more effective exploratory programs before locking in on one curriculum.					
36. Cooperate with local recreation clubs to expand extra curricular activities.					
37. Schedule students so they won't have the same teacher two or three years in a row.					
38. Provide in-service training for teachers on interpersonal relations.					
39. Have enough counselors to bring the number up to provide for recommended student-teacher ratio.					
40. Clarify role of central office consultants.					
41. Action be taken on recommendations from this report.					
42. Have students take two years of general education in the high school and have VT schools give trade instruction in grades 11 and 12.					
43. Give teachers an opportunity to work with students outside the classroom.					
44. Maintain a reference library of professional books and journals.					
45. Provide double sessions.					
46. Have teachers, administrators and consultants exchange jobs temporarily.					
47. Establish a pilot program in one school with only post high school curriculum.					
48. Encourage teachers doing graduate work to become certified in another area to permit variations in teaching assignments.					
49. Provide year round programs.					
50. Have educational decisions made by educators, not accountants.					

	1	2	3	4	5
51. Vocational-technical school directors should actively participate in regional organizations of secondary school principals.					
52. Run a pilot program with double sessions in shop and single sessions in related and general.					
53. Exchange teachers with personnel from trade and industry.					
54. Provide science exploratory programs.					
55. Use "career education" consultants to advise academic students on how to relate their subject to students occupational interests.					
56. Provide teachers with financial support for attending summer school.					
57. Adopt a modified concept of "school without walls".					
58. Provide selective specialization of regional schools so that each school would not teach all trade and industrial areas.					
59. Provide a mechanism for following up the recommendations of the conference.					
60. Give "non-accepted" applicants short term trials or exposure to exploratory programs.					
61. Provide a manpower pool of waiting teacher applicants.					
62. Need for more meaningful courses offered by higher education, including in-service training.					
63. Use cluster concepts in VT schools.					
64. Have trade teachers return to industry every five years.					
65. Allow seniors transfering into VT schools to graduate but require post high school work before certifing them as completing a trade.					
66. General education teachers need to become familiar with trade programs.					
67. Do not classify students who leave school to take a job in their trade as drop-outs.					
68. Resolve the impass with reclassification which was promised to teachers when they completed their course work.					
69. Student and peer evaluations of teachers in addition to supervisors evaluation is needed.					
70. Recruitment should emphasize search for minority group teachers.					

Appendix F

Evaluative instruments

1. Pre-Post conference questionnaire
2. Workshop sessions evaluations

PRE-CONFERENCE OBSERVATIONS

PLANNING FOR VOCATIONAL EDUCATION

NAME_____ DATE_____

The 1972 conference and workshop is centered about five major areas:

PLANNING, ADMINISTRATION, STAFF, CURRICULUM, AND STUDENTS

WHAT WOULD YOU CONSIDER YOUR MAJOR OBJECTIVES TO BE? (Please circle how important each area is to you. 1=little importance, 5=great importance.)

1. PLANNING:_____ 1 2 3 4 5

   A. List objectives below:

   _____
   _____
   _____
   _____

2. ADMINISTRATION_____ 1 2 3 4 5

   B. List objectives below:

   _____
   _____
   _____
   _____

3. STAFF_____ 1 2 3 4 5

   C. List objectives below:

   _____
   _____
   _____
   _____

4. CURRICULUM_____ 1 2 3 4 5

   D. List objectives below:

   _____
   _____
   _____
   _____

5. STUDENTS_____ 1 2 3 4 5

   E. List objectives below:

   _____
   _____
   _____
   _____

POST-CONFERENCE OBSERVATIONS

PLANNING FOR VOCATIONAL EDUCATION

NAME_____DATE_____

The 1972 conference and workshop is centered about five major areas:

Planning, Administration, Staff Curriculum, and Students

To what extent did you feel the major objectives were met? (Please circle how important each area is to you. 1=little importance, 5=great importance.)

1. PLANNING:_____ 1 2 3 4 5

   A. List objectives below:

   _____
   _____
   _____
   _____

2. ADMINISTRATION_____ 1 2 3 4 5

   B. List objectives below:

   _____
   _____
   _____
   _____

3. STAFF_____ 1 2 3 4 5

   C. List objectives below:

   _____
   _____
   _____
   _____

4. Curriculum_____ 1 2 3 4 5

   D. List objectives below:

   _____
   _____
   _____
   _____

5. STUDENTS_____ 1 2 3 4 5

   E. List objectives below:

   _____
   _____
   _____
   _____

WORKSHOP EVALUATION

PLANNING FOR VOCATIONAL EDUCATION

NAME_____

NAME OF WORKSHOP_____DATE_____

	YES	NO
1. Was the workshop long enough to cover the topic?	___	___
2. Did you get any new ideas for your work?	___	___
3. Did the panel stimulate your thinking?	___	___
4. Did you contribute to this session?	___	___
5. Will any specific changes occur as a result of this workshop?	___	___

6. If so, what types of changes? (please comment)_____

_____

_____

_____

_____

7. Specifically what are your feelings about the general value and usefullness of this session?_____

_____

_____

_____

_____

_____

_____

_____

8. Do you have any suggestions to improve the next session? ___ ___

_____

_____

_____

_____

_____

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_____

_____

_____

_____

Appendix G

Summary of Characteristics of Participants

Summary of Characteristics of Participants

1.	Sex	M-52 F- 6
2.	Age	Under 25- 1 25-29---- 1 30-34---- 5 35-39---- 7 40-44---- 12 45-49---- 8 50-54---- 16 55-59---- 4 60+ ----- 4
3.	Veteran	Vietnam Era Vet- 0 Non-Vietnam Era- 40 N.R.---------- 15
4.	Race	Black---- 2 P.R.----- 0 Mex-Amer- 0 Indian--- 0 Oriental- 0 Other---- 53 N.R.----- 3
5.	Income	Below Poverty Level- 2 Above Poverty Level- 48 N.R.---------- 5
6.	Geographic Area	Conn.-- 51 N.Y.--- 1 Mass.-- 1 Ohio--- 1 Colo.-- 1 N.R.--- 2
7.	Degree	None--------- 0 H.S. Diploma- 0 Bachelors---- 7 Masters------ 43 Ed.D.-------- 1 Ph.D.-------- 6
8.	Occupation	Currently in Education---------- 55 In Ed., but not in last five years 0 Never in Education---------- 0 Other Profession requiring degree- 1 Holding academic degree---------- 1 Not holding academic degree------- 0

9. Years of Teaching

None-- 3
1-4--- 3
5-9--- 3
10-14- 11
15-19- 16
20+ -- 22

10. Position

L.E.A.---------- 40
Teacher Trainer--- 1
State Ed. Agency-- 17
Non Education----- 2
Student---------- 2

11. School System

Public------ 41
Non-Public-- 1
N.R.-------- 15

12. Grade Level

Preschool---------- 0
K-3---------- 0
k-6---------- 0
7-9---------- 1
10-12---------- 18
7-12---------- 12
Elementary and Secondary 1
Post Secondary---------- 8
Adult---------- 5

13. Student Body (% Below Poverty Line)

0-------- 0
1-9------ 15
10-19---- 11
20-29---- 6
30-39---- 0
40-49---- 1
50-59---- 2
60-69---- 0
70-79---- 1
80-89---- 0
90-100--- 0
N.R.----- 22

14. Student Body (Minority Groups)

	Black	P.R.	Mex.-Amer.	Indian	Oriental
0	1	2	10	11	9
1-9	19	22	6	6	8
10-19	13	1	0	0	0
20-29	1	2	0	0	0
30-39	2	1	0	0	0
40-49	0	0	0	0	0
50-59	0	0	0	0	0
60-69	1	0	0	0	0
70-79	0	0	0	0	0
80-89	0	0	0	0	0
90-100	0	0	0	0	0

N.R.-20

15.	Higher Education	Arts and Sciences-- 1
		Education---------- 13
		Other-------------- 3
		N.R.--------------- 44
16.	Type of Position	Same----------------- 16
		Other---------------- 5
		Teacher-------------- 0
		Administrator-------- 8
		Supervisor----------- 0
		Pupil Personnel------ 2
		Instructional Media-- 0
		Ed. Aide------------- 0
		Volunteer------------ 0
		Other---------------- 0
		Teacher Trainer------ 3
		N.R.----------------- 35

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The University of Connecticut

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